=> fil reg; d ide 1-4 FILE 'REGISTRY' ENTERED AT 14:27:08 ON 08 APR 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 7 APR 2004 HIGHEST RN 672883-15-7 DICTIONARY FILE UPDATES: 7 APR 2004 HIGHEST RN 672883-15-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

L6 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN

RN 62624-30-0 REGISTRY

CN Ascorbic acid (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN DL-Ascorbic acid

FS STEREOSEARCH

MF C6 H8 O6

CI COM

LC STN Files: ADISNEWS, AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, DIOGENES, GMELIN*, HODOC*, HSDB*, IMSCOSEARCH, MEDLINE, PIRA, PROMT, TOXCENTER, TULSA, USPAT2, USPATFULL

(*File contains numerically searchable property data)

Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)

Relative stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

299 REFERENCES IN FILE CA (1907 TO DATE)
7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
299 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN

RN 5743-28-2 REGISTRY

CN L-Ascorbic acid, calcium salt (2:1), dihydrate (8CI, 9CI) (CA INDEX NAME) OTHER NAMES:

Cook

CN Calcium ascorbate dihydrate

CN Calcium L-ascorbate dihydrate

FS STEREOSEARCH

DR 6381-95-9

MF C6 H8 O6 . 1/2 Ca . H2 O

LC STN Files: BIOSIS, CA, CAPLUS, CHEMCATS, CSCHEM, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USAN, USPATFULL

CRN (50-81-7)

Absolute stereochemistry.

●1/2 Ca

● H20

9 REFERENCES IN FILE CA (1907 TO DATE)
9 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN

RN 5743-2791 REGISTRY

CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME) OTHER NAMES:

CN As-Cal

CN Ascalan

CN Ascorbic acid calcium salt

CN Ascorvit CA

CN Calcascorbin

CN Calci-C

CN Calcio

CN Calcio-Ci

CN Calcium ascorbate

CN Calscorbate

CN Erivit C

CN Hemicalcium ascorbate

CN L-Ascorbic acid calcium salt

FS STEREOSEARCH

DR 96653-51-9

MF C6 H8 O6 . 1/2 Ca

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, DIOGENES, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IPA,

297 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

MRCK*, PROMT, PS, TOXCENTER, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
(50-81-7)

Absolute stereochemistry.

CRN

●1/2 Ca

Ceklin

Celaskon

CN CN

299 REFERENCES IN FILE CAPLUS (1907 TO DATE) 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967) ANSWER 4 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN L6 50-81-7/ REGISTRY RNL-Ascorbic acid (8CI, 9CI) (CA INDEX NAME) CNOTHER NAMES: (+)-Ascorbic acid CN3-keto-L-Gulofuranolactone CN 3-0xo-L-gulofuranolactone CNAdenex CNCNAllercorb CNAntiscorbic vitamin CNAntiscorbutic vitamin CNAscoltin CNAscorbajen CNAscorbic acid CNAscorbicap CNAscorbutina CNAscorin CNAscorteal CNAscorvit C-Quin C-Vimin CNCNCantan CNCantaxin. CN Catavin C CNCe-Mi-Lin Ce-Vi-Sol CNCebicure CNCNCebion Cebion, .gamma.-lactone CNCNCebione CNCecon CN Cegiolan CNCeglion

```
CN
     Celin
CN
     Cell C
CN
     Cemagyl
CN
     Cenetone
CN
     Cereon
CN
     Cergona
CN
     Cescorbat
CN
     Cetamid
CN
     Cetane
CN
     Cetane-Caps TC
CN
     Cetebe
CN
     Cetemican
CN
     Cevalin
CN
     Cevatine
CN
     Cevex
CN
     Cevimin
CN
     Cevital
CN
     Cevitamic acid
CN
     Cevitamin
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
     DISPLAY
FS
     STEREOSEARCH
DR
     623158-95-2, 56533-05-2, 57304-74-2, 57606-40-3, 56172-55-5, 129940-97-2,
     14536-17-5, 50976-75-5, 154170-90-8, 89924-69-6, 30208-61-8, 259133-78-3
MF
     C6 H8 O6
CI
     COM
                   ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS,
LC
     STN Files:
       BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB,
       CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU,
       DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2,
       ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB,
       IMSCOSEARCH, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC,
       PDLCOM*, PHAR, PIRA, PROMT, PS, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
          (*File contains numerically searchable property data)
     Other Sources: DSL**, EINECS**, TSCA**, WHO
          (**Enter CHEMLIST File for up-to-date regulatory information)
```

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

69323 REFERENCES IN FILE CA (1907 TO DATE)
1350 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
69486 REFERENCES IN FILE CAPLUS (1907 TO DATE)
12 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> e aldonic acid/cn

E1 1 ALDOMYCIN/CN

E2 1 ALDONA ETHYL ENOL ETHER/CN

Page 5

5 E 3	0>	ALDONIC ACID/CN
E4	1	ALDONOLACTONASE/CN
E5	1	ALDONOLIG/CN
E6	1	ALDOPANTOATE/CN
E7	1	ALDOPENTOSE REDUCTASE/CN
E8	1	ALDOPHOSPHAMIDE/CN
E9	1	ALDOPHOSPHAMIDE PROPYLENEGLYCOL ACETAL/CN
E10	1	ALDOPHOSPHAMIDE SEMICARBAZONE/CN
E11	1	ALDOPHOSPHAMIDE-PERHYDRO-1,3-THIAZINE-4-CARBOXYLIC ACID/CN
E12	1	ALDOPUR/CN

=> fil reg; d stat que 130 FILE REGISTRY ENTERED AT 15:08:32 ON 08 APR 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

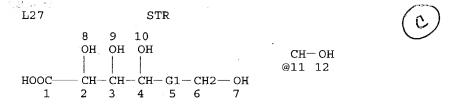
STRUCTURE FILE UPDATES: HIGHEST RN 672883-15-7 7 APR 2004 DICTIONARY FILE UPDATES: 7 APR 2004 HIGHEST RN 672883-15-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html



REP G1 = (0-1) 11 NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED this structure is covers the aldonic acids

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

748 SEA FILE=REGISTRY SSS FUL L27 320 SEA FILE=REGISTRY ABB=ON L29 AND SALT

salts of aldonic acids

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN L-Mannonic acid, monosodium salt (9CI)

C6 H12 O7 . Na

Na

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):320

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, strontium salt (9CI) MF C6 H12 O7 . x Sr

Absolute stereochemistry.

•x Sr

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, 4-O-.beta.-D-galactopyranosyl-, calcium salt (2:1), mixt. with D-gluconic acid calcium salt (2:1) (9CI)

MF C12 H22 O12 . C6 H12 O7 . Ca

CI MXS

CM 1

●1/2 Ca

CM 2

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Galactonic acid, monosodium salt (9CI) MF C6 H12 O7 . Na

Absolute stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

D-Gluconic acid, magnesium salt (2:1), hydrate (9CI) IN MF C6 H12 O7 . x H2 O . 1/2 Mg

Absolute stereochemistry.

●1/2 Mg

●x H₂O

L30

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN D-Gluconic acid, compd. with N,N''-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1), mixt. with copper(2+) diacetate (9CI)

MF C22 H30 Cl2 N10 . 2 C6 H12 O7 . C2 H4 O2 . 1/2 Cu

CIMXS

CM

1/2 Cu(II)

CM

CM3

Absolute stereochemistry.

CM

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with 3,7-dihydro-1,3,7-trimethyl-1H-purine-2,6-dione, 2-hydroxybenzoic acid monosodium salt, magnesium chloride (MgCl2) and 1,2,3-propanetriol mono(dihydrogen phosphate) calcium salt (1:1) (9CI)

MF C8 H10 N4 O2 . C7 H6 O3 . C6 H12 O7 . C3 H9 O6 P . 3/2 Ca . Cl2 Mg . Na CI MXS

CM 1

Cl-Mg-Cl

CM 2

Absolute stereochemistry.

●1/2 Ca

CM 3

CM 4

Na

CM 5

> CM6

CM 7

$$\begin{array}{c} \text{OH} \\ | \\ \text{HO-} \ \text{CH}_2\text{--} \ \text{CH-} \ \text{CH}_2\text{--} \ \text{OH} \end{array}$$

REGISTRY COPYRIGHT 2004 ACS on STN L30 320 ANSWERS

D-Gluconic acid, calcium salt (2:1), mixt. with 2-hydroxypropanoic

acid calcium salt (2:1) (9CI)

MF C6 H12 O7 . C3 H6 O3 . Ca

CIMXS

> CM1

1/2 Ca

CM2

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, strontium salt (2:1) (9CI) MF C6 H12 O7 . 1/2 Sr

Cook

Absolute stereochemistry.

●1/2 Sr

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, monosodium salt, polymer with myo-inositol hexakis(dihydrogen phosphate) (9CI)

MF (C6 H18 O24 P6 . C6 H12 O7 . Na) x

CI PMS

CM 1

Absolute stereochemistry.

Na

CM 2

Relative stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Xylonic acid, calcium salt (9CI) MF C5 H10 O6 . x Ca

Absolute stereochemistry.

●x Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Gluconic acid, compd. with 1,4-dihydroxy-5,8-bis[[2-[(2-hydroxyethyl)amino]ethyl]amino]-9,10-anthracenedione (2:1) (9CI)
MF C22 H28 N4 O6 . 2 C6 H12 O7

CM 1

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Arabinonic acid, compd. with N,N-diethylethanamine (1:1) (9CI) MF C6 H15 N . C5 H10 O6

CM 1

Absolute stereochemistry.

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN **D-Gulonic acid, monosodium salt (9CI)** MF C6 H12 O7 . Na

Absolute stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Altronic acid, calcium salt (2:1) (9CI) MF C6 H12 O7 . 1/2 Ca

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Cellulose, D-gluconate, magnesium salt (9CI) MF C6 H12 O7 . x Mg . x Unspecified

CM 1

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Xylonic acid, cadmium salt (2:1) (9CI) MF C5 H10 O6 . 1/2 Cd

Relative stereochemistry.

●1/2 Cd

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, iron(3+) sodium salt (9CI) MF C6 H12 O7 . x Fe . x Na

•x Fe(III)

●x Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Idonic acid, calcium salt (1:1), L- (8CI)
MF C6 H12 O7 . Ca

Absolute stereochemistry.

Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, mixt. with 2-hydroxy-1,2,3-propanetricarboxylic acid trisodium salt (9CI)

MF C6 H12 O7 . C6 H8 O7 . 3 Na

CI MXS

CM 1

Absolute stereochemistry.

CM 2

$$\begin{array}{c} \text{CO}_2\text{H} \\ | \\ \text{HO}_2\text{C} - \text{CH}_2 - \text{C} - \text{CH}_2 - \text{CO}_2\text{H} \\ | \\ \text{OH} \end{array}$$

●3 Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, compd. with cytorhodin A (9CI) MF C60 H88 N2 O20 . x C6 H12 O7

CM 1

PAGE 1-A

PAGE 2-A

PAGE 3-A

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, lead(2+) salt (2:1) (9CI)

MF C6 H12 O7 . 1/2 Pb

●1/2 Pb(II)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Arabinonic acid, compd. with (-)-ephedrine (1:1), D- (8CI) MF C10 H15 N O . C5 H10 O6

CM 1

Absolute stereochemistry.

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with N-[2-hydroxy-5-[(1S)-1-hydroxy-2-[[(1S)-2-(4-methoxyphenyl)-1-methylethyl]amino]ethyl]phenyl]formamide (1:1) (9CI)

MF C19 H24 N2 O4 . C6 H12 O7

CM 1

CM2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, compd. with N,N''-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1), mixt. with dihydrogen (T-4)-bis[L-aspartato(2-)-N,O1] magnesate(2-), disodium butanedioate, 5'-inosinic acid, and 3-pyridinecarboxamide. (9CI)

C22 H30 Cl2 N10 . C10 H13 N4 O8 P . C8 H10 Mg N2 O8 . 2 C6 H12 O7 . C6 H6 MF N2 O . C4 H6 O4 . 2 H . 2 Na

CI MXS

> CM 1

2 H+

CM2

 $_{\mathrm{HO_2C-CH_2-CH_2-CO_2H}}$

●2 Na

CM 3

Absolute stereochemistry.

CM 4

CM 5

CM 6

Absolute stereochemistry.

CM 7

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Gluconic-6-14C acid, potassium salt (7CI)

MF C6 H12 O7 . K

$$^{\mathrm{H_2}}_{\mathrm{HO}}$$
 $^{\mathrm{OH}}_{\mathrm{OH}}$ $^{\mathrm{OH}}_{\mathrm{OH}}$ $^{\mathrm{OH}}_{\mathrm{CO_2H}}$

• к

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Cellulose, ether with D-gluconic acid, sodium salt (9CI)
MF C6 H12 O7 . x Na . x Unspecified

CM 1

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Galactopyranuronic acid, compd. with D-gluconic acid (1:1), calcium salt, D- (8CI)
MF C6 H12 O7 . C6 H10 O7 . Ca

CM 1

Absolute stereochemistry.

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, bismuth(3+) salt (1:1), monohydrate (9CI) MF C6 H12 O7 . Bi . H2 O

Absolute stereochemistry.

● Bi(III)

● H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, magnesium salt, compd. with L-glutamic acid (2:1:1)
(9CI)

MF C6 H12 O7 . C5 H9 N O4 . 1/2 Mg

CM 1

Absolute stereochemistry.

●1/2 Mg

CM 2

09/830912

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN D-Lyxonic acid, monopotassium salt (9CI) MF C5 H10 O6 . K

Absolute stereochemistry.

K

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

D-Gluconic acid, iron salt (9CI) IN

C6 H12 O7 . x Fe MF

CICOM

Absolute stereochemistry.

 \bullet x Fe(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN D-Gluconic acid, compd. with 1-octadecanamine (1:1) (9CI) C18 H39 N . C6 H12 O7

CM1

CM 2

 ${\rm H_2N^-}$ (CH₂)₁₇-Me

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

D-Gluconic acid, monosodium salt, mixt. with L-ascorbic acid monoammonium salt and D-glucose (9CI)

C6 H12 O7 . C6 H12 O6 . C6 H8 O6 . H3 N . Na

CI MXS

IN

MF

CM 1

Absolute stereochemistry.

NH3

CM 2

Absolute stereochemistry.

Na

CM 3

REGISTRY COPYRIGHT 2004 ACS on STN L30 320 ANSWERS IN. Hexonic acid, monopotassium salt (9CI) MF C6 H12 O7 . K

ОН ОН ОН ОН
$$| \ | \ | \ |$$
 НО $_2$ С- СН- СН- СН- СН- СН $_2$ ОН

K

REGISTRY COPYRIGHT 2004 ACS on STN 320 ANSWERS D-Gluconic acid, magnesium salt (2:1), mixt. with (4S, 4aS, 5aS, 6S, 12aS) -4-(dimethylamino) -1,4,4a,5,5a,6,11,12a-octahydro-3,6,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-2-naphthacenecarboxamide C22 H24 N2 O8 . C6 H12 O7 . 1/2 Mg

MF

CIMXS

> CM 1

Absolute stereochemistry.

●1/2 Mg

CM 2

Absolute stereochemistry. Rotation (-).

REGISTRY COPYRIGHT 2004 ACS on STN 320 ANSWERS

Arabinonic acid, monopotassium salt (9CI) IN

MFC5 H10 O6 . K

CI COM Relative stereochemistry.

● K

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Ribonic acid, cadmium salt (6CI, 9CI)
MF C5 H10 O6 . 1/2 Cd

Relative stereochemistry.

●1/2 Cd

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Galactonic acid, calcium salt (2:1) (9CI) MF C6 H12 O7 . 1/2 Ca

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Gluconic-14C acid, Ba salt (6CI) MF C6 H12 O7 . 1/2 Ba

●1/2 Ba

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, monosodium salt, mixt. with N,N'-1,2-ethanediylbis[N(carboxymethyl)glycine] trisodium salt (9CI)

MF C10 H16 N2 O8 . C6 H12 O7 . 4 Na

CI MXS

CM 1

Absolute stereochemistry.

Na

CM 2

$$\begin{array}{c|c} \text{CH}_2\text{--}\text{CO}_2\text{H} & \text{CH}_2\text{--}\text{CO}_2\text{H} \\ | & | & | \\ \text{HO}_2\text{C}\text{--}\text{CH}_2\text{--}\text{N}\text{--}\text{CH}_2\text{--}\text{CH}_2\text{--}\text{N}\text{--}\text{CH}_2\text{--}\text{CO}_2\text{H} \\ \end{array}$$

•3 Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Gluconic acid, D-, compd. with hydroquinidine (8CI) MF C20 H26 N2 O2 . x C6 H12 O7

CM 1

Absolute stereochemistry. Rotation (+).

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, monopotassium salt (9CI)

MF C6 H12 O7 . K

CI COM

Absolute stereochemistry.

K

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Talonic acid, monosodium salt (9CI)

MF C6 H12 O7 . Na

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, monosodium salt, mixt. with D-glucose, 2-hydroxy-1,2,3-propanetricarboxylic acid, 2-hydroxy-1,2,3propanetricarboxylic acid trisodium salt and sodium dihydrogen phosphate (9CI)

MF C6 H12 O7 . C6 H12 O6 . C6 H8 O7 . C6 H8 O7 . H3 O4 P . 5 Na

CI MXS

CM 1

Na

CM 2

Absolute stereochemistry.

Na

CM 3

$$\begin{array}{c} {\rm CO_2H} \\ | \\ {\rm HO_2C-CH_2-C-CH_2-CO_2H} \\ | \\ {\rm OH} \end{array}$$

CM 4

$$\begin{array}{c} {\rm CO_2H} \\ | \\ {\rm HO_2C-CH_2-C-CH_2-CO_2H} \\ | \\ {\rm OH} \end{array}$$

•3 Na

CM 5

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Xylonic acid, monosodium salt (9CI) MF C5 H10 O6 . Na

Absolute stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Ribonic acid, monopotassium salt (9CI) MF C5 H10 O6 . K

K

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN D-Gluconic acid, compd. with (5.alpha.,6.alpha.)-7,8-didehydro-4,5-epoxy-IN 17-methylmorphinan-3,6-diol (1:1) (9CI)

MF C17 H19 N O3 . C6 H12 O7

> CM1

Absolute stereochemistry.

CM2

Absolute stereochemistry. Rotation (-).

REGISTRY COPYRIGHT 2004 ACS on STN L30 320 ANSWERS

D-Gluconic acid, monopotassium salt, mixt. with 2-aminoethanesulfonic acid, bis(D-gluconato-O1,O2)zinc and L-lysine (9CI)

MFC12 H22 O14 Zn . C6 H14 N2 O2 . C6 H12 O7 . C2 H7 N O3 S . K

CIMXS

> CM1

CM 2

Absolute stereochemistry.

K

CM 3

 $_{\rm H_2N^-CH_2^-CH_2^-SO_3H}$

CM 4

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, technetium(5+) salt (9CI) MF C6 H12 O7 . x Tc

09/830912

●x Tc(V)

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN D-Gluconic acid, compd. with (2S-trans)-methyl 7-chloro-6,7,8-trideoxy-6-[[(1-methyl-4-propyl-2-pyrrolidinyl)carbonyl]amino]-1-thio-L-threo-.alpha.-D-galacto-octopyranoside (1:1) (9CI)

MF C18 H33 Cl N2 O5 S . C6 H12 O7

CM

Absolute stereochemistry.

CM2

Absolute stereochemistry.

REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, manganese(2+) salt (2:1) (9CI) C6 H12 O7 . 1/2 Mn

●1/2 Mn(II)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

D-Gluconic acid, compd. with N,N''-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide(2:1), mixt. with heptasodium [[(phosphonomethyl)imino]bis[2,1-ethanediylnitrilobis(methylene)]]tetrakis [phosphonate](9CI)

MF C22 H30 Cl2 N10 . C9 H28 N3 O15 P5 . 2 C6 H12 O7 . 7 Na

CI MXS

IN

CM 1

●7 Na

CM 2

CM 3

Absolute stereochemistry.

CM 4

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Lyxonic acid, calcium salt (9CI)

MF C5 H10 O6 .. x Ca

Absolute stereochemistry.

●x Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, monohexadecanoate, iron(2+) salt (2:1) (9CI)

MF C22 H42 O8 . 1/2 Fe

CI IDS

CM 1

Absolute stereochemistry.

CM 2

 ${
m HO_2C^-}$ (CH₂) ${
m _{14}^-Me}$

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Ribonic acid, compd. with N,N-diethylethanamine (1:1) (9CI)

MF C6 H15 N . C5 H10 O6

CM 1

Absolute stereochemistry.

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Gulonic acid, monosodium salt (9CI) MF C6 H12 O7 . Na

Absolute stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Ribonic acid, monopotassium salt (9CI) MF C5 H10 O6 . K

Absolute stereochemistry.

K

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Gluconic acid, ion(1-), (OC-6-22)-pentaammine(D-gluconato-O1)cobalt(2+) chloride (1:1:1) (9CI)
MF C6 H26 Co N5 O7 . C6 H11 O7 . Cl

CM 1

HO-
$$CH_2$$
- CH -

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Xylonic acid, lead(2+) salt (2:1) (9CI) MF C5 H10 O6 . 1/2 Pb

Absolute stereochemistry.

●1/2 Pb(II)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN **D-Gluconic acid, chromium salt (9CI)** MF C6 H12 O7 . x Cr

Absolute stereochemistry.

 \bullet x Cr(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Galactonic acid, monopotassium salt (9CI) MF C6 H12 O7 . K

K

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, mixt. with metaphosphoric acid sodium salt (9CI)

C6 H12 O7 . Unspecified

CI MXS

MF

CM 1

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with L-cysteine and
 (OC-6-21)-disodium [[N,N'-1,2-ethanediylbis[N-[(carboxy.kappa.0)methyl]glycinato-.kappa.N,.kappa.0]](4-)]calciate(2-) (9CI)

C10 H12 Ca N2 O8 . C6 H12 O7 . C3 H7 N O2 S . 1/2 Ca . 2 Na

CI MXS

MF

CM 1

Absolute stereochemistry.

●1/2 Ca

●2 Na+

CM 3

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Arabinonic acid, strontium salt (2:1), pentahydrate (9CI)
MF C5 H10 O6 . 5/2 H2 O . 1/2 Sr

Relative stereochemistry.

●5/2 H₂O

●1/2 Sr

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Arabinonic acid, compd. with (+)-pseudoephedrine (1:1), D- (8CI)
MF C10 H15 N O . C5 H10 O6

Absolute stereochemistry.

CM 2

Absolute stereochemistry. Rotation (+).

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, copper salt, mixt. with (T-4)-bis(D-gluconato-

.kappa.O1,.kappa.O2)zinc and chitosan (9CI)

MF C12 H22 O14 Zn . x C6 H12 O7 . x Cu . x Unspecified

CI MXS

CM 1

Absolute stereochemistry.

•x Cu(x)

CM 2

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, mixt. with 3-[(4-amino-2-methyl-5 pyrimidinyl)methyl]-5-(2-hydroxyethyl)-4-methylthiazolium dodecyl sulfate
 (salt) mono(dodecyl sulfate) (salt) (9CI)

MF C12 H26 O4 S . C12 H25 O4 S . C12 H17 N4 O S . C6 H12 O7

CI MXS

CM 1

Absolute stereochemistry.

CM 2

 $HO_3SO-(CH_2)_{11}-Me$

CM 3

CM 4

 $Me^-(CH_2)_{11}^-O^-SO_3^-$

CM 5

Me
$$CH_2$$
 CH_2 CH_2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Ribonic acid, NH4 salt (7CI) MF C5 H10 O6 . H3 N

Relative stereochemistry.

● NH3

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with L-ascorbic acid, 2-hydroxypropanoic acid calcium salt (2:1), phosphoric acid and (3.beta.,5Z,7E,22E)-9,10-secoergosta-5,7,10(19),22-tetraen-3-ol (9CI)

MF $\,$ C28 H44 O . C6 H12 O7 . C6 H8 O6 . C3 H6 O3 . Ca . H3 O4 P $\,$

CI MXS

CM 1

CM 2

●1/2 Ca

CM 3

●1/2 Ca

CM 4

Absolute stereochemistry.

CM 5

Absolute stereochemistry. Rotation (+). Double bond geometry as shown.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Gluconic acid, D-, bismuth calcium salt (8CI) MF C6 H12 O7 . x Bi . x Ca

●x Bi(III)

●x Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Arabinonic acid, calcium salt (2:1), octahydrate (9CI) MF C5 H10 O6 . 1/2 Ca . 4 H2 O

Absolute stereochemistry.

●1/2 Ca

●4 H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

D-Gluconic acid, copper salt, mixt. with methyl(1-methylethyl)phenol

(9CI) MF C10 H

C10 H14 O . C6 H12 O7 . x Cu

CI MXS

IN



D1-Me

D1-OH

D1-Pr-i

CM 2

Absolute stereochemistry.

•x Cu(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic-2-C-d acid, calcium salt (2:1) (9CI) MF C6 H11 D O7 . 1/2 Ca

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, calcium salt (1:1) (9CI) MF C6 H12 O7 . Ca

● Ca

IN

ΜF

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN D-Galactonic acid, calcium salt (2:1) (9CI) C6 H12 O7 . 1/2 Ca

Absolute stereochemistry.

●1/2 Ca

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN L30D-Gluconic acid, germanium salt (3:2) (9CI) IN $C6\ H12\ O7\ .\ 2/3\ Ge$ ΜF

Absolute stereochemistry.

●2/3 Ge(II)

L30

INΜF

REGISTRY COPYRIGHT 2004 ACS on STN 320 ANSWERS Hexonic acid, monosodium salt (9CI) C6 H12 O7 . Na

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with sodium hydrogen phosphorofluoridate (9CI)

MF C6 H12 O7 . 1/2 Ca . F H2 O3 P . x Na

CI MXS

CM 1

●x Na

CM 2

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, tin(2+) salt (2:1) (9CI)

MF C6 H12 O7 . 1/2 Sn

●1/2 Sn(II)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Idonic acid, monosodium salt (8CI)
MF C6 H12 O7 . Na

Relative stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, aluminum salt (9CI) MF C6 H12 O7 . x Al

Absolute stereochemistry.

●x Al

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Ribonic acid, monosodium salt (9CI) MF C5 H10 O6 . Na

$$\mathbb{R}$$
 \mathbb{R} \mathbb{R} \mathbb{R} $\mathbb{C}O_2H$ $\mathbb{O}H$

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Arabinonic acid, calcium salt (2:1), decahydrate (9CI) MF C5 H10 O6 . 1/2 Ca . 5 H2 O

Relative stereochemistry.

●1/2 Ca

●5 H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Gluconic acid, compd. with .gamma.-(4-chlorophenyl)-N,N-dimethyl-2pyridinepropanamine (1:1) (9CI)
MF C16 H19 C1 N2 . C6 H12 O7

CM 1

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, ammonium titanium salt (9CI) MF C6 H12 O7 . x H3 N . x Ti

Absolute stereochemistry.

$$\begin{array}{c|c} \text{OH} & \text{OH} \\ \text{R} & \text{S} & \text{R} \\ \text{OH} & \text{OH} \end{array}$$

●x NH3

 \bullet x Ti(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Allonic acid, monosodium salt (9CI) MF C6 H12 O7 . Na

Absolute stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, bismuth(3+) salt (3:1) (9CI) MF C6 H12 O7 . 1/3 Bi

●1/3 Bi(III)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN **D-Mannonic acid, monosodium salt (9CI)** MF C6 H12 O7 . Na

Absolute stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Arabinonic acid, monopotassium salt (9CI) MF C5 H10 O6 . K

Absolute stereochemistry.

K

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Arabinonic acid, calcium salt (1:1) (9CI) MF C5 H10 O6 . Ca

● Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, lead salt (9CI) MF C6 H12 O7 . x Pb

Absolute stereochemistry.

 \bullet x Pb(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with 5-[2-[[3-[(1,1-dimethylethyl)amino]-2-hydroxypropyl]thio]-4-thiazolyl]-2-thiophenecarboxamide (9CI)

MF C15 H21 N3 O2 S3 . x C6 H12 O7

CM 1

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, sodium salt, polymer with (chloromethyl) oxirane and D-glucitol (9CI)

MF (C6 H14 O6 . C6 H12 O7 . C3 H5 Cl O . x Na)x

CI PMS

CM 1

Absolute stereochemistry.

CM 2

CM 3

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with rel-(2R)-3,4-dihydro-2,5,7,8-tetramethyl-2-[(4R,8R)-4,8,12-trimethyltridecyl]-2H-1-benzopyran-6-yl acetate, N-(1-methylethyl)-2-propanamine dichloroacetate and (17.alpha.)-19-norpregn-4-en-17-ol (9CI)

MF C31 H52 O3 . C20 H32 O . C6 H15 N . C6 H12 O7 . C2 H2 C12 O2 . 1/2 Ca

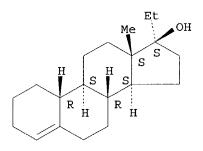
CI MXS

CM 1

Relative stereochemistry.

Me Me Me (CH₂)
$$_3$$
 $_{Me}$ (CH₂) $_3$ $_{Me}$ (CH₂) $_3$ $_{Me}$ (CH₂) $_3$ $_{Me}$

Absolute stereochemistry.



CM 3

Absolute stereochemistry.

●1/2 Ca

CM 4

CM 5

i-Pr-NH-Pr-i

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, monolithium salt, mixt. with D-glucose (9CI)

MF C6 H12 O7 . C6 H12 O6 . Li

CI MXS

CM 1

Absolute stereochemistry.

● Li

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with 2-deoxy-2-(methylamino)-D-glucose (1:1) (9CI)

MF C7 H15 N O5 . C6 H12 O7

CM 1

Absolute stereochemistry.

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucaric acid, calcium salt (1:1), mixt. with D-gluconic acid

calcium salt (2:1) (9CI)

C6 H12 O7 . C6 H10 O8 . 3/2 Ca

MF C6 CI MXS

CM 1

Absolute stereochemistry.

• Ca

CM 2

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Gluconic acid, compd. with 2,2',2''-nitrilotris[ethanol] (1:1) (9CI)
MF C6 H15 N O3 . C6 H12 O7

CM 1

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH}_2\text{--}\text{OH} \\ | \\ \text{HO--}\text{CH}_2\text{--}\text{CH}_2\text{--}\text{N--}\text{CH}_2\text{--}\text{CH}_2\text{--}\text{OH} \end{array}$$

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gulonic acid, calcium salt (2:1) (9CI) MF C6 H12 O7 . 1/2 Ca

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Lyxonic acid, monopotassium salt (9CI) MF C5 H10 O6 . K

Absolute stereochemistry.

K

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Gluconic acid, procaine salt, D- (6CI) MF C13 H20 N2 O2 . C6 H12 O7

CM 1.

Absolute stereochemistry.

CM 2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{C-O-CH}_2\text{-CH}_2\text{-NEt}_2 \\ \\ \text{H}_2\text{N} \end{array}$$

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with calcium chloride
 (CaCl2) and N,N'-1,2-ethanediylbis[N-(carboxymethyl)glycine] disodium salt
 (9CI)

MF C10 H16 N2 O8 . C6 H12 O7 . Ca Cl2 . 1/2 Ca . 2 Na

CI MXS

CM 1

Cl = Ca = Cl

CM 2

Absolute stereochemistry.

●1/2 Ca

●2 Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, cobalt(3+) sodium salt (9CI) MF C6 H12 O7 . x Co . x Na

Absolute stereochemistry.

•x Co(III)

•x Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Gluconic acid, monoammonium salt (8CI, 9CI)
MF C6 H12 O7 . H3 N

Relative stereochemistry.

● NH3

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, compd. with 1-amino-2-propanol (1:1) (9CI) MF C6 H12 O7 . C3 H9 N O

Absolute stereochemistry.

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, yttrium(3+) salt (3:1) (9CI) MF C6 H12 O7 . 1/3 Y

Absolute stereochemistry.

●1/3 Y(III)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, monosodium salt, polymer with (chloromethyl)oxirane and D-glucitol (9CI)

MF (C6 H14 O6 . C6 H12 O7 . C3 H5 Cl O . Na)x

CI PMS

CM 1

Absolute stereochemistry.

Na

CM 3

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, lanthanum(3+) salt (3:1) (9CI) MF C6 H12 O7 . 1/3 La

Absolute stereochemistry.

●1/3 La(III)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Gluconic acid, compd. with (15,65,7R,8R,8aR)-octahydro-1,6,7,8-indolizinetetrol (1:1) (9CI)
MF C8 H15 N O4 . C6 H12 O7

CM 1

Absolute stereochemistry. Rotation (+).

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

N D-Gluconic acid, polymer with 2,5-furandione and 2-propenoic acid,

sodium salt, graft (9CI)

(C6 H12 O7 . C4 H2 O3 . C3 H4 O2)x . x Na

CM 1

MF

CM 2

Absolute stereochemistry.

CM 3

CM 4

IN

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

Lyxonic acid, NH4 salt (7CI)

MF C5 H10 O6 . H3 N

Relative stereochemistry.

● NH₃

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN D-Gluconic acid, compd. with 4-hydroxy-.alpha.,.alpha.,4-triphenyl-1-IN piperidinepropanol (1:1) (9CI)

MF $\mbox{C26}\ \mbox{H29}\ \mbox{N}\ \mbox{O2}$. $\mbox{C6}\ \mbox{H12}\ \mbox{O7}$

> CM1

$$\begin{array}{c} \text{Ph} \\ \mid \\ \text{CH}_2-\text{CH}_2-\text{C-OH} \\ \mid \\ \text{Ph} \\ \\ \text{HO} \quad \text{Ph} \end{array}$$

CM 2

Absolute stereochemistry.

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

D-Gluconic acid, copper salt (9CI) IN

MF C6 H12 O7 . x Cu

CI COM

•x Cu(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, monosodium salt, mixt. with 2,2'-iminobis[ethanol],
2,2',2''-nitrilotris[ethanol] and sodium hydroxide (Na(OH)) (9CI)

C6 H15 N O3 . C6 H12 O7 . C4 H11 N O2 . H Na O . Na

CI MXS

MF

CM 1

Na- ОН

CM 2

Absolute stereochemistry.

Na

CM 3

 $HO-CH_2-CH_2-NH-CH_2-CH_2-OH$

CM 4

$$\begin{array}{c} \text{CH}_2-\text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{CH}_2-\text{N-CH}_2-\text{CH}_2-\text{OH} \end{array}$$

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, copper salt, mixt. with (2R,3R)-2,3-

dihydroxybutanedioic acid and (2R,3R)-2,3-dihydroxybutanedioic acid sodium salt (9CI)

MF $\,$ C6 H12 O7 . C4 H6 O6 . C4 H6 O6 . x Cu . x Na CI $\,$ MXS $\,$

CM 1

Absolute stereochemistry.

•x Na

CM 2

Absolute stereochemistry.

•x Cu(x)

CM 3

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic-2-C-d acid, barium salt (2:1) (9CI) MF C6 H11 D O7 . 1/2 Ba

●1/2 Ba

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Mannonic acid, compd. with N,N-diethylethanamine (1:1) (9CI) MF C6 H15 N . C6 H12 O7

CM 1

Absolute stereochemistry.

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Gluconic acid, compd. with (9S)-6'-methoxycinchonan-9-ol (9CI)
MF C20 H24 N2 O2 . x C6 H12 O7

CM 1

Absolute stereochemistry.

CM 2

Absolute stereochemistry. Rotation (+).

09/830912

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, ion(1-), [4S-[4.alpha.,5.beta.,6.beta.(S*)]]-1-(2-amino-2-oxoethyl)-4-[[6-[2-carboxy-6-(1-hydroxyethyl)-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-en-3-yl]-9-oxo-9H-fluoren-2-yl]methyl]-1,4-diazoniabicyclo[2.2.2]octane inner salt (9CI)

MF C32 H35 N4 O6 . C6 H11 O7

CM 1

Absolute stereochemistry.

$$H_2N$$
 N_+
 N_+

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, monopotassium salt, mixt. with 3,7-dihydro-1,3,7-trimethyl-1H-purine-2,6-dione and .beta.-D-glucopyranose (9CI)

MF C8 H10 N4 O2 . C6 H12 O7 . C6 H12 O6 . K

CI MXS

CM 1

Absolute stereochemistry. Rotation (+).

CM 2

Absolute stereochemistry.

K

CM 3

MF

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN L-Gulonic acid, calcium salt (2:1) (9CI)

C6 H12 O7 . 1/2 Ca

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, monopotassium salt, monohydrate (9CI) MF C6 H12 O7 . H2 O . K

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{OH} & \text{OH} \\ & & \text{OH} & \text{OH} \\ & & \text{OH} & \text{OH} \end{array}$$

● K

■ H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with (8.alpha.,9R)-6'-methoxycinchonan-9-ol (1:1) (9CI)

MF C20 H24 N2 O2 . C6 H12 O7

CI COM

СМ

Absolute stereochemistry.

1

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Xylonic acid, monosodium salt (9CI) MF C5 H10 O6 . Na

Absolute stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Lyxonic acid, monosodium salt (9CI) MF C5 H10 O6 . Na

Absolute stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, cyclic ester with boric acid (H3BO3), sodium salt

MF $C6\ H12\ O7\ .\ x\ B\ H3\ O3\ .\ x\ Na$

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Gluconic-2-t acid, barium salt, D- (8CI)

MF C6 H11 O7 T . x Ba

Absolute stereochemistry.

●x Ba

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, monosodium salt, mixt. with [[N,N'-1,2ethanediylbis[L-aspartato-.kappa.N,.kappa.O1,.kappa.O4]](4-)]ferrate(1-)
(9CI)

MF C10 H12 Fe N2 O8 . C6 H12 O7 . Na

CI MXS

Absolute stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with (1'.xi.)-18-decarboxy-40-demethyl-3,7-dideoxo-N3'-[(dimethylamino)acetyl]-3,7-dihydroxy-N47-methyl-18-[(4-methyl-1piperazinyl)carbonyl]-5-oxocandicidin D cyclic 15,19-hemiacetal (2:1) (9CI)

MF C68 H103 N5 O19 . 2 C6 H12 O7

PAGE 1-B

- NMe₂

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN **D-Gluconic acid, zirconium salt (9CI)** MF C6 H12 O7 . x Zr

Absolute stereochemistry.

•x Zr(I)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, compd. with 1-octanamine (1:1) (9CI) MF C8 H19 N . C6 H12 O7

CM 1

Absolute stereochemistry.

CM 2

 ${\rm H_2N^-}$ (CH₂)₇-Me

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Gluconic acid, compd. with 1-[3-chloro-4-(heptyloxy)phenyl]biguanide (1:1)
(8CI)

F C15 H24 Cl N5 O . C6 H12 O7

CM 1

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with (1'.xi.)-18-decarboxy-40-demethyl-3,7-dideoxo-N3'-[(dimethylamino)acetyl]-18-[[[2-(dimethylamino)ethyl]amino]carbonyl]-3,7-dihydroxy-5-oxocandicidin D cyclic 15,19-hemiacetal (9CI)

MF C66 H101 N5 O19 . x C6 H12 O7

PAGE 1-A

PAGE 2-A

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with N,N''-bis(4-chlorophenyl)-3,12-diimino2,4,11,13-tetraazatetradecanediimidamide (2:1), mixt. with sodium
hypochlorite (9CI)

MF C22 H30 Cl2 N10 . 2 C6 H12 O7 . Cl H O . Na

CI MXS

CM 1

Cl-OH

● Na

CM 2

CM 3

Absolute stereochemistry.

CM 4

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, monosodium salt, polymer with 1,3-

diisocyanatomethylbenzene, ethyl carbamate and methyloxirane (9CI)

MF (C9 H6 N2 O2 . C6 H12 O7 . C3 H7 N O2 . C3 H6 O . Na) x

CI PMS

D1-Me

CM 2

Absolute stereochemistry.

Na

CM 3

CM 4

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Arabinonic acid, potassium salt, polymer with (chloromethyl)oxirane and D-glucitol (9CI)

MF (C6 H14 O6 . C5 H10 O6 . C3 H5 Cl O . x K)x

CI PMS

CM 1

Relative stereochemistry.

●x K

CM 2

CM 3

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with N-(1-methylethyl)-2propanamine dichloroacetate (9CI)

MF C6 H15 N . C6 H12 O7 . C2 H2 Cl2 O2 . 1/2 Ca

CI MXS

CM 1

Absolute stereochemistry.

●1/2 Ca

CM 2

i-Pr-NH-Pr-i

CM 4

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with L-lysine homopolymer
hydrochloride (9CI)

MF (C6 H14 N2 O2)x . C6 H12 O7 . 1/2 Ca . x Cl H

CI MXS

CM 1

Absolute stereochemistry.

●1/2 Ca

CM 2

CM 3

CM 4

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, monopotassium salt, mixt. with 3,7-dihydro-1,3,7-trimethyl-1H-purine-2,6-dione, .beta.-D-glucopyranose and 2-hydroxy-1,2,3-propanetricarboxylic acid (9CI)

MF C8 H10 N4 O2 . C6 H12 O7 . C6 H12 O6 . C6 H8 O7 . K

CI MXS

Absolute stereochemistry. Rotation (+).

CM

Absolute stereochemistry.

K

CM3

$$\begin{array}{c} {\rm CO_2H} \\ | \\ {\rm HO_2C-CH_2-C-CH_2-CO_2H} \\ | \\ {\rm OH} \end{array}$$

CM

L30

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN D-Gluconic acid, compd. with 2,2',2''-nitrilotris[ethanol] (9CI)

C6 H15 N O3 . x C6 H12 O7 MF

Absolute stereochemistry.

CM 2

$$\begin{array}{c} {\rm CH_2-CH_2-OH} \\ | \\ {\rm HO-CH_2-CH_2-N-CH_2-CH_2-OH} \end{array}$$

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, chromium(3+)-51Cr salt (3:1) (9CI) MF C6 H12 O7 . 1/3 Cr

Absolute stereochemistry.

●1/3 51Cr(III)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Gluconic acid, compd. with (9S)-cinchonan-9-ol (1:1) (9CI)
MF C19 H22 N2 O . C6 H12 O7

CM 1

Absolute stereochemistry.

CM 2

Absolute stereochemistry. Rotation (+).

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Galactonic acid, calcium salt, hydrate (2:1:5) (9CI) MF C6 H12 O7 . 1/2 Ca . 5/2 H2 O

Absolute stereochemistry.

●1/2 Ca

●5/2 H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Gluconic acid, compd. with (S)-N-[2-[(2-hydroxy-3-phenoxypropyl)amino]ethyl]-2-methylpropanamide (1:1) (9CI)
MF C15 H24 N2 O3 . C6 H12 O7

CM 1

Absolute stereochemistry.

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with [4S(4.alpha.,4a.alpha.,5.alpha.,5a.alpha.,6.beta.,12a.alpha.)]-4(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,6,10,12,12a-hexahydroxy6-methyl-1,11-dioxo-2-naphthacenecarboxamide monohydrochloride (9CI)

MF C22 H24 N2 O9 . C6 H12 O7 . 1/2 Ca . Cl H

CI MXS

CM 1

Absolute stereochemistry.

HCl

CM 2

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Arabinonic acid, sodium salt (9CI)
MF C5 H10 O6 . x Na

●x Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Gulonic acid, monopotassium salt (9CI) MF C6 H12 O7 . K

Relative stereochemistry.

● .K

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, monocesium salt (9CI) MF C6 H12 O7 . Cs

Absolute stereochemistry.

🛡 Cs

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, technetium-99Tc salt (9CI) MF C6 H12 O7 . x Tc

 \bullet x 99Tc(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Arabinonic acid, monopotassium salt, polymer with (chloromethyl)oxirane and D-glucitol (9CI)

MF (C6 H14 O6 . C5 H10 O6 . C3 H5 Cl O . K)x

CI PMS

CM 1

Relative stereochemistry.

K

CM 2

CM 3

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with 2-aminoethanol (1:1) (9CI)

MF C6 H12 O7 . C2 H7 N O

Absolute stereochemistry.

CM 2

 $H_2N-CH_2-CH_2-OH$

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN L30 D-Gluconic acid, compd. with 4~(diethylamino)-2-butynyl IN

.alpha.-cyclohexyl-.alpha.-hydroxybenzeneacetate (1:1) (9CI) MF

C22 H31 N O3 . C6 H12 O7

CM1

$$\begin{array}{c|c}
\text{HO} & O \\
 & | & | \\
\text{C-C-O-CH}_2 - \text{C} & \text{C-CH}_2 - \text{NEt}_2
\end{array}$$
Ph

CM 2

Absolute stereochemistry.

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN L30 IN

D-Gluconic acid, magnesium salt (2:1), mixt. with 2,2',2''-[1,2,3-benzenetriyltris(oxy)]tris[N,N,N-triethylethanaminium]

triiodide, 2-(diethylamino)-N-(2,6-dimethylphenyl)acetamide and 2,2'-[(1,4-dioxo-1,4-butanediy1)bis(oxy)]bis[N,N,N-trimethylethanaminium] (9CI)

MF C30 H60 N3 O3 . C14 H30 N2 O4 . C14 H22 N2 O . C6 H12 O7 . 3 I . 1/2 Mg CIMXS

Absolute stereochemistry.

●1/2 Mg

CM 2

CM 3

$$\begin{array}{c} \text{O} \\ \text{NH-C-CH}_2\text{-NEt}_2 \\ \text{Me} \end{array}$$

CM 4

●3 I-

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Idonic acid, Ca salt (6CI, 7CI)
MF C6 H12 O7 . 1/2 Ca

Relative stereochemistry.

●1/2 Ca

REGISTRY COPYRIGHT 2004 ACS on STN L30 320 ANSWERS D-Gluconic acid, cerium(3+) salt (9CI) INC6 H12 O7 . x Ce MF

Absolute stereochemistry.

•x Ce(III)

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN L30Erythromycin, gluconate (salt) (8CI) C37 H67 N O13 . C6 H12 O7

CM

IN ΜF

Absolute stereochemistry.

CM2

Absolute stereochemistry. Rotation (-).

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Galactonic acid, calcium salt (2:1), decahydrate (9CI) MF C6 H12 O7 . 1/2 Ca . 5 H2 O

Absolute stereochemistry.

●1/2 Ca

●5 H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with N,N''-bis(4-chloropheny1)-3,12-diimino-2,4,11,13-tetraazatetradecanediimidamide (2:1), mixt. with D-gluconic acid copper salt (9CI)

MF C22 H30 Cl2 N10 . 2 C6 H12 O7 . C6 H12 O7 . x Cu

CI MXS

CM 1

•x Cu(x)

CM 2

CM 3

Absolute stereochemistry.

CM 4

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Xylonic acid, calcium salt (2:1) (9CI)

MF C5 H10 O6 . 1/2 Ca

Relative stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gulonic acid, compd. with N,N-diethylethanamine (1:1) (9CI)

MF C6 H15 N . C6 H12 O7

Absolute stereochemistry.

$$\begin{array}{c|c} \text{OH} & \text{OH} \\ \text{R} & \text{S} & \text{R} & \text{R} \\ \text{OH} & \text{OH} \end{array}$$

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with 3-[(dibutylamino)methyl]-4,5,6-trihydroxy1(3H)-isobenzofuranone (1:1) (9CI)

MF C17 H25 N O5 . C6 H12 O7

CM 1

Absolute stereochemistry.

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, ion(1-), 1-(2-amino-2-oxoethyl)-4-[[6-[(4S,5R,6S)-2-carboxy-6-[(1R)-1-hydroxyethyl]-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-en-3-yl]-9-oxo-9H-fluoren-2-yl]methyl]-1,4-diazoniabicyclo[2.2.2]octane (2:1) (9CI)

MF C32 H36 N4 O6 . 2 C6 H11 O7

Absolute stereochemistry.

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with cellulose (9CI) MF

C6 H12 O7 . 1/2 Ca . Unspecified

CI MXS

> CM1

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with L-ascorbic acid, .beta.,.beta.-carotene, myo-inositol hexakis(dihydrogen phosphate) calcium magnesium salt and (3.beta.,5Z,7E,22E)-9,10-secoergosta-5,7,10(19),22tetraen-3-ol (9CI)

MF C40 H56 . C28 H44 O . C6 H18 O24 P6 . C6 H12 O7 . C6 H8 O6 . \times Ca . \times Mg

CI MXS

CM 1

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

CM 2

Relative stereochemistry.

$$0PO_3H_2$$
 H_2O_3PO
 $0PO_3H_2$
 OPO_3H_2
 OPO_3H_2

●x Ca

●x Mg

CM 3

●1/2 Ca

CM 4

Absolute stereochemistry.

CM 5

Absolute stereochemistry. Rotation (+). Double bond geometry as shown.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, potassium salt (9CI) MF C6 H12 O7 . x K

●x K

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Lyxonic acid ammonium salt (D-), ammonium salt, D- (8CI) MF C5 H10 O6 . H3 N

Absolute stereochemistry.

● NH3

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, potassium zirconium salt (9CI) MF C6 H12 O7 . x K . x Zr

Absolute stereochemistry.

●x K

 $\bullet_{x} Zr(x)$

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Arabinonic acid, monosodium salt (9CI) MF C5 H10 O6 . Na

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Arabinonic acid, calcium salt (9CI) MF C5 H10 O6 . x Ca

Absolute stereochemistry.

●x Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, iron(2+) salt, dihydrate (9CI) MF C6 H12 O7 . 1/2 Fe . H2 O

Absolute stereochemistry.

●1/2 Fe(II)

● H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Gluconic acid, calcium salt (2:1), mixt. with L-ascorbic acid,
3-[[6-0-(6-deoxy-.alpha.-L-mannopyranosyl)-.beta.-D-glucopyranosyl]oxy]-2-

(3,4-dihydroxyphenyl)-5,7-dihydroxy-4H-1-benzopyran-4-one, 2-(diphenylmethoxy)-N,N-dimethylethanamine hydrochloride and

N-(4-hydroxyphenyl)acetamide (9CI)

MF C27 H30 O16 . C17 H21 N O . C8 H9 N O2 . C6 H12 O7 . C6 H8 O6 . 1/2 Ca . Cl H

CI MXS

CM 1

Absolute stereochemistry.

●1/2 Ca

CM 2

Absolute stereochemistry. Rotation (+).

CM 3

Ph2CH-O-CH2-CH2-NMe2

● HCl

CM 5

Absolute stereochemistry.

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN D-Gluconic acid, compd. with 18-decarboxy-40-demethyl-3,7-dideoxo-N3'-[(dimethylamino)acetyl]-18-[[[2-(dimethylamino)ethyl]amino]carbonyl]-3,7-dihydroxy-N47-methyl-5-oxocandicidin D cyclic 15,19-hemiacetal (2:1) (9CI) C67 H103 N5 O19 . 2 C6 H12 O7

CM 1

L30

IN

ΜF

Absolute stereochemistry.
Double bond geometry as described by E or Z.
Currently available stereo shown.

PAGE 1-A

PAGE 1-B

PAGE 1-C

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, technetium salt (9CI)

MF C6 H12 O7 . x Tc

 \bullet x Tc(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, compd. with 1-dodecanamine (1:1) (9CI) MF C12 H27 N . C6 H12 O7

CM 1

Absolute stereochemistry.

CM 2

 H_2N^- (CH₂)₁₁-Me

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Gluconic acid, compd. with 1-[p-(heptyloxy)phenyl]biguanide (1:1) (8CI)
MF C15 H25 N5 O . C6 H12 O7

CM 1

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer IN with butyl 2-propenoate, .alpha.-[dimethyl[3-[(2-methyl-1-oxo-2propenyl)oxy]propyl]silyl]-.omega.-[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate, Macromonomer AN 6 and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.hydroxypoly(oxy-1,2-ethanediyl), graft, D-gluconate (salt) (9CI) (C8 H15 N O2 . C8 H8 . C7 H12 O2 . C6 H10 O3 . (C2 H6 O Si)n C12 H26 O3 MFSi2 . (C2 H4 O)n C4 H6 O2 . Unspecified)x . x C6 H12 O7

Cook

CM1

Absolute stereochemistry.

CM

CM

CM

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM

$$H_2C$$
 O $Me-C-C$ $O-CH_2-CH_2$ OH

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel & \parallel \\ \text{Me}_2 \text{N-CH}_2 \text{-CH}_2 \text{-O-C-C-Me} \end{array}$$

$$^{\mathrm{H_2C}}$$
 O $\parallel \ \parallel$ \parallel $^{\mathrm{Me-C-C-C-O-CH_2-CH_2-OH}}$

CM8

$$\begin{array}{c} \overset{\text{O}}{\parallel} \\ \text{n-BuO-C-CH-----} \text{CH}_{2} \end{array}$$

CM 9

 $H_2C = CH - Ph$

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN L30 D-Gluconic acid, copper(2+) salt (2:1), monohydrate (9CI) IN C6 H12 O7 . 1/2 Cu . 1/2 H2 O MF

Absolute stereochemistry.

●1/2 Cu(II)

●1/2 H₂O

L30

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN D-Gluconic acid, compd. with 1-amino-3-[[3-[4-(1-methylethyl)phenyl]-1-[2-[4-(1-methylethyl)phenyl]ethyl]propyl]amino]-2-propanol (2:1) (9CI)

C26 H40 N2 O . 2 C6 H12 O7 MF

$$\begin{array}{c} \text{OH} \\ \text{NH-} \text{CH}_2\text{-} \text{CH-} \text{CH}_2\text{-} \text{NH}_2 \\ \\ \text{i-Pr} \end{array}$$

Absolute stereochemistry.

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

Arabinonic acid, potassium salt (9CI)

MFC5 H10 O6 . x K

CICOM

Relative stereochemistry.

REGISTRY COPYRIGHT 2004 ACS on STN L30 320 ANSWERS

D-Gluconic acid, compd. with 1-ethyl-4-(methylamino)-2,2-diphenylpentyl

acetate (1:1) (9CI)

MF $\mbox{C22}\ \mbox{H29}\ \mbox{N}\ \mbox{O2}$. $\mbox{C6}\ \mbox{H12}\ \mbox{O7}$

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, copper salt, mixt. with 2-cyano-N-

[(ethylamino)carbonyl]-2-(methoxyimino)acetamide (9CI)

MF C7 H10 N4 O3 . C6 H12 O7 . x Cu

CI MXS

CM 1

CM 2

Absolute stereochemistry.

 \bullet x Cu(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with N-(aminocarbonyl)-2bromo-3-methylbutanamide, 3,7-dihydro-1,3,7-trimethyl-1H-purine-2,6-dione,
1-[(3,4-dimethoxyphenyl)methyl]-6,7-dimethoxyisoquinoline hydrochloride
and 5-ethyl-5-phenyl-2,4,6(1H,3H,5H)-pyrimidinetrione (9CI)

MF C20 H21 N O4 . C12 H12 N2 O3 . C8 H10 N4 O2 . C6 H12 O7 . C6 H11 Br N2 O2

. 1/2 Ca . Cl H

Absolute stereochemistry.

●1/2 Ca

CM 3

● HCl

CM 4

IN

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

D-Gluconic acid, compd. with 2-amino-2-(hydroxymethyl)-1,3-propanediol

(1:1) (9CI)

MF C6 H12 O7 . C4 H11 N O3

CM 1

Absolute stereochemistry.

CM 2

$$\begin{array}{c|c} & \text{NH}_2 \\ | & \\ \text{HO-CH}_2 - \text{C-CH}_2 - \text{OH} \\ | & \\ \text{CH}_2 - \text{OH} \end{array}$$

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt, mixt. with strontium-87Sr phosphate

(9CI)

MF C6 H12 O7 . x Ca . H3 O4 P . x Sr

CI MXS

CM 1

●x 87sr

Absolute stereochemistry.

●x Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Xylonic acid, monoammonium salt (9CI) MF C5 H10 O6 . H3 N

Absolute stereochemistry.

● NH3

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, monosodium salt, polymer with carbonic dichloride, 2-methyl-2-[(1,4-dioxo-4-phenoxybutoxy)methyl]-1,3-propanediyl bis(phenyl butanedioate), 4,4'-(1-methylethylidene)bis[phenol] and 4-(1-methyl-1-phenylethyl)phenol (9CI)

MF (C35 H36 O12 . C15 H16 O2 . C15 H16 O . C6 H12 O7 . C Cl2 O . Na)x CI PMS

CM ·

09/830912

CM. 3

Absolute stereochemistry.

Na

CM

CM

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN D-Gluconic acid, compd. with N-[2-[(2-hydroxy-3-phenoxypropy1)amino]ethyl]-IN

2-methylpropanamide (1:1) (9CI)

C15 H24 N2 O3 . C6 H12 O7 MF

> CM1

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, calcium salt (2:1), monohydrate (9CI) MF C6 H12 O7 . 1/2 Ca . 1/2 H2 O

Absolute stereochemistry.

●1/2 Ca

●1/2 H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Gluconic acid, compd. with 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-2-naphthacenecarboxamide (1:1), D- (8CI)

MF C22 H24 N2 O8 . C6 H12 O7

CM 1

Absolute stereochemistry.

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

D-Gluconic acid, mono(dihydrogen phosphate), iron(2+) salt (2:1) (9CI)

MF C6 H13 O10 P . 1/2 Fe

CI IDS

CM 1

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN L-Gluconic acid, monosodium salt (9CI)

MF C6 H12 O7 . Na

Absolute stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, antimony(5+) sodium salt (1:1:1) (9CI)

MF C6 H12 O7 . Na . Sb

Absolute stereochemistry.

Na

• Sb(V)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, aluminum salt (3:1) (9CI) MF C6 H12 O7 . 1/3 Al

Absolute stereochemistry.

●1/3 Al

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, monoammonium salt (9CI) MF C6 H12 O7 . H3 N

Absolute stereochemistry.

● NH3

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with 2-(dimethylamino)ethyl 2-methyl-2-propenoate
 graft polymer with dodecyl 2-methyl-2-propenoate, ethenylbenzene and
 oxirane methyl ether (9CI)

MF (C16 H30 O2 $\overline{}$ C8 H15 N O2 . C8 H8 . C2 H4 O)x . x C6 H12 O7 . x C H4 O

CM 1

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{OH} & \text{OH} \\ & \text{R} & \text{S} & \text{R} \\ & \text{OH} & \text{OH} \end{array}$$

CM 2

CM 3

 $_{
m H_3C}-_{
m OH}$

CM 4

CM 5

$$\begin{array}{c} \text{O} \quad \text{CH}_2 \\ \parallel \quad \parallel \\ \text{Me}_2 \text{N--CH}_2 - \text{CH}_2 - \text{O--C--C--Me} \end{array}$$

CM 6

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{Me-} & \text{(CH}_2)_{11} - \text{O-} \text{C-} \text{C-} \text{Me} \end{array}$$

CM 7

 $H_2C = CH - Ph$

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, germanium salt (9CI) MF C6 H12 O7 . x Ge

Absolute stereochemistry.

 \bullet x Ge(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Galactonic acid, potassium salt (7CI) MF C6 H12 O7 . K

Relative stereochemistry.

• к

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Idonic acid, monosodium salt, monohydrate (9CI) MF C6 H12 O7 . H2 O . Na

● Na

● H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, ammonium salt (9CI) MF C6 H12 O7 . x H3 N

Absolute stereochemistry.

●x NH3

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Starch, D-gluconate, sodium salt (9CI) MF C6 H12 O7 . x Na . x Unspecified

CM 1

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, copper salt, mixt. with 1-octadecylpyridinium chloride (9CI)

C23 H42 N . C6 H12 O7 . Cl . x Cu MF

CIMXS

> CM1

Absolute stereochemistry.

Cu(x)

CM2

● Cl -

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN Ribonic acid, monolithium salt (9CI) MF

C5 H10 O6 . Li

Relative stereochemistry.

Li

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN D-Galactonic acid, compd. with N, N-diethylethanamine (1:1) (9CI) C6 H15 N . C6 H12 O7

CM 1

Absolute stereochemistry.

2 CM

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, compd. with (8.alpha.,9R)-cinchonan-9-ol (1:1) (9CI)

MFC19 H22 N2 O . C6 H12 O7

COM CI

> CM 1

Absolute stereochemistry.

CM 2

Absolute stereochemistry.

REGISTRY COPYRIGHT 2004 ACS on STN L30 320 ANSWERS

D-Gluconic acid, calcium salt (2:1), mixt. with calcium phosphate and

chondroitin 4-(hydrogen sulfate) sodium salt (9CI)
C6 H12 O7 . 3/2 Ca . x H3 O4 P . H2 O4 S . Na . Unspecified MF

CI MXS

CM 1

●x Ca

CM 2

Absolute stereochemistry.

●1/2 Ca

CM 3

CM 4

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Cellulose, D-gluconate, calcium salt (9CI)

MF C6 H12 O7 . x Ca . x Unspecified

CM 1

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

REGISTRY COPYRIGHT 2004 ACS on STN L30 320 ANSWERS

D-Gluconic acid, calcium salt (2:1), mixt. with disodium IN phosphorofluoridate (9CI)

C6 H12 O7 . 1/2 Ca . F H2 O3 P . 2 Na

CI

MF

CM1

●2 Na

CM

Absolute stereochemistry.

●1/2 Ca

REGISTRY COPYRIGHT 2004 ACS on STN L30 320 ANSWERS D-Gluconic acid, potassium salt, monohydrate (9CI) IN C6 H12 O7 . H2 O . x K MF

●x K

● H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Arabinonic-1-14C acid, monopotassium salt, D- (8CI) MF C5 H10 O6 . K

Absolute stereochemistry.

K

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, ammonium zirconium salt (9CI) MF C6 H12 O7 . x H3 N . x Zr

●x NH3

 \bullet x Zr(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Ribonic-1-13C acid, cadmium salt (2:1) (9CI) MF C5 H10 06 . 1/2 Cd

Absolute stereochemistry.

●1/2 Cd

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, triacetate, calcium salt (2:1) (9CI) MF C12 H18 O10 . 1/2 Ca CI IDS

CM 1

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, barium salt (2:1) (9CI) MF C6 H12 O7 . 1/2 Ba

Absolute stereochemistry.

●1/2 Ba

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Avermectin Ala, 5-O-demethyl-25-de(1-methylpropyl)-4''-deoxy-4''(dimethylamino)-25-(1-methylethyl)-, (4''R)-, D-gluconate (salt) (9CI)
MF C49 H75 N O13 . C6 H12 O7

CM 1

Absolute stereochemistry. Double bond geometry as shown.

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN

D-Gluconic acid, ion(1-), salt with starch 2-hydroxy-3-

(trimethylammonio)propyl ether (9CI)

C6 H16 N O2 . x C6 H11 O7 . x Unspecified

CM1

MF

Absolute stereochemistry.

CM 2

> CM3

OH
$$|$$
 HO-CH₂-CH-CH₂-N+Me₃

CM

STRUCTURE DIAGRAM IS NOT AVAILABLE ***

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN L30

D-Gluconic acid, cobalt salt (9CI)

C6 H12 O7 . x Co

IN

Absolute stereochemistry.

●x Co(x)

REGISTRY COPYRIGHT 2004 ACS on STN L30 320 ANSWERS

D-Gluconic acid, polymer with (chloromethyl)oxirane and D-glucitol, iron(3+) salt (9CI)

Cook

(C6 H14 O6 . C6 H12 O7 . C3 H5 Cl O)x . x Fe MF

> CM1

> > CM2

Absolute stereochemistry.

CM

CM

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

D-Gluconic acid, calcium salt (9CI) IN

C6 H12 O7 . x Ca MF

CICOM

Absolute stereochemistry.

x Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Galactonic acid, sodium salt (9CI)

C6 H12 O7 . x Na

MF

Relative stereochemistry.

●x Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, magnesium salt (2:1), tetrahydrate (9CI)

MF C6 H12 O7 . 2 H2 O . 1/2 Mg

Absolute stereochemistry.

$$\begin{array}{c|c} \text{OH} & \text{OH} \\ \text{OH} & \text{OH} \\ \text{OH} & \text{OH} \end{array}$$

●1/2 Ma

●2 H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

N D-Gluconic acid, calcium salt (2:1), mixt. with magnesium

hexanedioate (1:1) (9CI)

C6 H12 O7 . C6 H10 O4 . 1/2 Ca . Mg

CI MXS

MF

CM 1

 $_{\rm HO_2C^-}$ (CH₂)₄ - CO₂H

Mq

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, dysprosium-159Dy salt (9CI) MF C6 H12 O7 . x Dy

Absolute stereochemistry.

 \bullet_{x} 159_{Dy}(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Arabinonic acid, calcium salt (2:1) (8CI, 9CI) MF C5 H10 O6 . 1/2 Ca

Relative stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with (R)-N-(2,4-dihydroxy-3,3-dimethyl-1-oxobutyl)-.beta.-alanine monosodium salt (9CI)

MF C9 H17 N O5 . C6 H12 O7 . 1/2 Ca . Na

CI MXS

· CM 1

Absolute stereochemistry. Rotation (+).

$$_{
m HO_2C}$$
 $\stackrel{
m H}{
m N}$ $\stackrel{
m OH}{
m R}$ $_{
m OH}$ $_{
m OH}$

Na

CM 2

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, compd. with 3-pyridinemethanol (1:1) (9CI) MF C6 H12 O7 . C6 H7 N O

CM 1

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

MF C27 H33 N3 O8 . C6 H12 O7

CM 1

Absolute stereochemistry.

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN L-Proline, 1-[[[[4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,6,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-2-naphthacenyl]carbonyl]amino]methyl]-, [4S-(4.alpha.,4a.alpha.,5a.alpha.,6.beta.,12a.alpha.)]-, mixt. with D-gluconic acid magnesium salt (2:1) (9CI)

MF C28 H33 N3 O10 . C6 H12 O7 . 1/2 Mg

CI MXS

CM 1

Absolute stereochemistry.

●1/2 Mg

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Arabinonic acid, calcium salt (2:1) (9CI) MF C5 H10 O6 . 1/2 Ca

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Talonic acid, monopotassium salt (9CI) MF C6 H12 O7 . K

Absolute stereochemistry.

• к

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, compd. with 1-deoxy-1-(methylamin

D-Gluconic acid, compd. with 1-deoxy-1-(methylamino)-D-glucitol (1:1) (9CI)

MF C7 H17 N O5 . C6 H12 O7

Absolute stereochemistry.

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, compd. with 2,2'-iminobis[ethanol] (1:1) (9CI) MF C6 H12 O7 . C4 H11 N O2

CM 1

Absolute stereochemistry.

CM 2

HO-CH2-CH2-NH-CH2-CH2-OH

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN **D-Gluconic acid, magnesium salt (9CI)** MF C6 H12 O7 . x Mg

●x Mg

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, monosodium salt (9CI)

MF C6 H12 O7 . Na

CI COM

Absolute stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Altronic acid, monosodium salt (9CI)

F C6 H12 O7 . Na

Absolute stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, calcium tin salt (9CI)

1F C6 H12 O7 . x Ca . x Sn

●x Ca

 \bullet_x Sn(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, magnesium salt (2:1), dihydrate (9CI) MF C6 H12 O7 . H2 O . 1/2 Mg

Absolute stereochemistry.

●1/2 Mg

● H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Arabinonic acid, calcium salt (8CI, 9CI)
MF C5 H10 O6 . x Ca

Relative stereochemistry.

●x Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with 2-(dimethylamino)ethyl 2-methyl-2-propenoate
 graft polymer with dodecyl 2-methyl-2-propenoate, ethenylbenzene,
 Macromonomer AS 6 and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega. methoxypoly(oxy-1,2-ethanediyl) (9CI)

MF (C16 H30 O2 . C8 H15 N O2 . C8 H8 . (C2 H4 O)n C5 H8 O2 . Unspecified)x .

(C16 H30 O2 . C8 H15 N O2 . C8 H8 . (C2 H4 O)n C5 H8 O2 . Unspecified)x . x C6 H12 O7

CM 1

Absolute stereochemistry.

CM 2

CM 3

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

$$H_2C$$
 O H_2C O H_2C H_2C O H_2C OME

CM 5

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{Me}_2 \text{N-CH}_2 - \text{CH}_2 - \text{O-C-C-Me} \end{array}$$

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{Me-} & \text{(CH}_2)_{\,11} - \text{O--C-C-Me} \end{array}$$

 $H_2C = CH - Ph$

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Lyxonic acid, calcium salt (2:1) (9CI)
MF C5 H10 O6 . 1/2 Ca

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN L-Ascorbic acid, mixt. with D-gluconic acid calcium salt (2:1),
2-hydroxypropanoic acid calcium salt (2:1) and phosphoric acid (9CI)

MF C6 H12 O7 . C6 H8 O6 . C3 H6 O3 . Ca . H3 O4 P

CI MXS

CM 1

CM 2

●1/2 Ca

Absolute stereochemistry.

●1/2 Ca

CM 4

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with 1-methyl-N-phenyl-N-(2-thienylmethyl)-4-piperidinamine (2R,3R)-2,3-dihydroxybutanedioate (1:1)

MF C17 H22 N2 S . C6 H12 O7 . C4 H6 O6 . 1/2 Ca

CI MXS

CM 1

Absolute stereochemistry.

●1/2 Ca

CM 2

CM 3

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, tin(4+) salt (1:1) (9CI) MF C6 H12 O7 . Sn

Absolute stereochemistry.

• Sn(IV)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Xylonic acid, calcium salt (2:1), dihydrate (9CI) MF C5 H10 O6 . 1/2 Ca . 2 H2 O

●1/2 Ca

●2 H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN L-Ascorbic acid, mixt. with D-gluconic acid calcium salt (2:1)

MF C6 H12 O7 . C6 H8 O6 . 1/2 Ca

CI MXS

CM 1

Absolute stereochemistry.

●1/2 Ca

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Arabinonic acid, monolithium salt (9CI)

MF C5 H10 O6 . Li

Relative stereochemistry.

• Li

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, compd. with N,N-diethylethanamine (1:1) (9CI) MF C6 H15 N . C6 H12 O7

CM 1

Absolute stereochemistry.

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Gluconic acid, compd. with (8.alpha.,9R)-6'-methoxycinchonan-9-ol (1:1),
dihydrate (9CI)
MF C20 H24 N2 O2 . C6 H12 O7 . 2 H2 O

CM 1

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, mixt. with (E)-sodium hydrogen 2-butenedioate (9CI)

MF C6 H12 O7 . C4 H4 O4 . Na

CI MXS

CM . 1

Double bond geometry as shown.

Na

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Xylonic-1-14C acid, lead salt (2:1), D- (6CI)

MF C5 H10 O6 . 1/2 Pb

●1/2 Pb(II)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Galactonic acid, calcium salt (9CI) MF C6 H12 O7 . x Ca

Absolute stereochemistry.

●x Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, titanium salt (9CI) MF C6 H12 O7 . x Ti

Absolute stereochemistry.

 \bullet_{x} Ti(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, cobalt(2+) salt (2:1) (9CI) MF C6 H12 O7 . 1/2 Co

●1/2 Co(II)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, sodium zirconium salt (9CI) MF C6 H12 O7 . x Na . x Zr

Absolute stereochemistry.

●x Na

 $\bullet_{x} Zr(x)$

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Arabinonic-1-13C acid, monopotassium salt (9CI) MF C5 H10 O6 . K

Absolute stereochemistry.

K

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, monolithium salt (9CI) MF C6 H12 O7 . Li

CI COM

Absolute stereochemistry.

● Li

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Arabinonic acid, calcium salt (2:1) (9CI) MF C5 H10 O6 . 1/2 Ca

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, monosilver(1+) salt (9CI) MF C6 H12 O7 . Ag

Absolute stereochemistry.

Ag(I)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN L-Ascorbic acid, mixt. with D-gluconic acid and zinc sulfate (1:1) (9CI)

MF C6 H12 O7 . C6 H8 O6 . H2 O4 S . Zn

CI MXS

CM 2

Absolute stereochemistry.

CM 3

Absolute stereochemistry.

REGISTRY COPYRIGHT 2004 ACS on STN 320 ANSWERS

Gluconic-6-14C-6-t acid, potassium salt (7CI)

C6 H11 O7 T . K

L30

ΙN

٩F

٩F

K

REGISTRY COPYRIGHT 2004 ACS on STN L30 320 ANSWERS IN

 $exttt{D-Gluconic}$ acid, calcium salt (2:1), mixt. with calcium carbonate (1:1) and 2-hydroxypropanoic acid calcium salt (2:1) (9CI) C6 H12 O7 . C3 H6 O3 . C H2 O3 . 2 Ca

CI MXS

CM 1

●1/2 Ca

CM 2

• Ca

CM 3

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, sodium salt (9CI)

MF C6 H12 O7 . x Na

●x Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, compd. with chitosan (9CI) MF C6 H12 O7 . x Unspecified

CM 1

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Galactonic acid, calcium salt (2:1), tetrahydrate (9CI)
MF C6 H12 O7 . 1/2 Ca . 2 H2 O

Absolute stereochemistry.

●1/2 Ca

●2 H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, technetium-99Tc(5+) salt (9CI) MF C6 H12 O7 . \times Tc

Absolute stereochemistry.

●x 99Tc(V)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, indium-113In salt (9CI) MF C6 H12 O7 . x In

Absolute stereochemistry.

 \bullet_{x} 113 In (x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, manganese(2+) salt (2:1), trihydrate (9CI) MF C6 H12 O7 . 3/2 H2 O . 1/2 Mn

Absolute stereochemistry.

●1/2 Mn(II)

●3/2 H₂O

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, magnesium sodium salt (9CI) MF C6 H12 O7 . x Mg . x Na

Absolute stereochemistry.

●x Mg

●x Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Gluconic acid, D-, 2-[p-bromo-.alpha.-(2dimethylaminoethyl)benzyl]pyridine salt (1:1) (6CI)
MF C16 H19 Br N2 . C6 H12 O7

CM 1

Absolute stereochemistry.

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Erythromycin, cyclic 11,12-carbonate, D-gluconate (salt) (9CI)
MF C38 H65 N O14 . C6 H12 O7

Absolute stereochemistry.

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, compd. with D-glucitol, iron salt (9CI) MF C6 H14 O6 . x C6 H12 O7 . x Fe

· CM 1

Absolute stereochemistry.

lacktrianglex Fe(x)

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Idonic acid, monosodium salt (9CI) MF C6 H12 O7 . Na

Absolute stereochemistry.

HO S R S R
$$CO_2H$$

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Gluconic acid, calcium salt (2:1) (9CI)
MF C6 H12 O7 . 1/2 Ca

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Gluconic acid, labeled with carbon-14, monopotassium salt (9CI)
MF C6 H12 O7 . K

K

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, polymer with (chloromethyl)oxirane and D-glucitol, iron salt (9CI)

MF (C6 H14 O6 . C6 H12 O7 . C3 H5 Cl O)x . x Fe

CM 1

CM 2

Absolute stereochemistry.

CM 3

CM 4

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Ascorbic acid, mono-D-gluconate (salt), calcium salt (9CI)

MF C6 H12 O7 . C6 H8 O6 . \times Ca

Absolute stereochemistry.

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, ion(1-), 2-hydroxy-N,N,N-trimethylethanaminium (9CI)

C6 H11 O7 . C5 H14 N O

CM 1

Absolute stereochemistry.

CM 2

 $Me_3+N-CH_2-CH_2-OH$

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Idonic acid, monosodium salt (9CI)

MF C6 H12 O7 . Na

Na

REGISTRY COPYRIGHT 2004 ACS on STN L30 320 ANSWERS

D-Mannonic acid, monopotassium salt (9CI) IN

MFC6 H12 O7 . K

Absolute stereochemistry.

REGISTRY COPYRIGHT 2004 ACS on STN L30 320 ANSWERS D-Gluconic acid, compd. with 1,3,5-triazine-2,4,6-triamine (9CI) ΙN

MF

C6 H12 O7 . x C3 H6 N6

CM1

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Idonic acid, calcium salt, L- (8CI)
MF C6 H12 O7 . x Ca

Absolute stereochemistry.

●x Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with butyl 2-methyl-2-propenoate graft polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate, ethenylbenzene, Macromonomer AA 6, Macromonomer AB 6 and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (9CI)

MF (C8 H15 N O2 . C8 H14 O2 . C8 H8 . (C2 H4 O)n C4 H6 O2 . Unspecified . Unspecified)x . x C6 H12 O7

CM 1

Absolute stereochemistry.

CM 2

CM 3

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel & \parallel \\ \text{Me}_2 \text{N-CH}_2 \text{-CH}_2 \text{-O-C-C-Me} \end{array}$$

 $H_2C = CH - Ph$

CM 8

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Xylonic acid, calcium salt (2:1) (9CI) MF C5 H10 O6 . 1/2 Ca

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Arabinonic acid, monopotassium salt (9CI) MF C5 H10 O6 . K

Absolute stereochemistry.

K

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with [4- [(aminocarbonyl)amino]phenyl]arsonic acid and 3-mercaptovaline (9CI)

 $\mbox{MF}^{\mbox{\tiny L}}$ C7 H9 As N2 O4 . C6 H12 O7 . C5 H11 N O2 S . 1/2 Ca

CI MXS

CM 1

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{OH} & \text{OH} \\ & \text{R} & \text{S} & \text{R} \\ & \text{OH} & \text{OH} \end{array}$$

●1/2 Ca

CM 2

CM 3

$$\begin{array}{c|c} ^{H_2N} & \text{SH} \\ & | & | \\ ^{HO_2C-CH-C-Me} \\ & | & \\ ^{Me} \end{array}$$

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, calcium salt (2:1), mixt. with 3,7-dihydro-3,7-dimethyl-1H-purine-2,6-dione calcium salt (9CI)

MF C7 H8 N4 O2 . C6 H12 O7 . Ca

CI MXS

●1/2 Ca

CM 2

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, polymer with dihydro-2,5-furandione,
(3S-cis)-3.6-dimethyl-1.4-dioxane-2.5-dione and 1.4-dioxane-2.5-d

(3S-cis)-3,6-dimethyl-1,4-dioxane-2,5-dione and 1,4-dioxane-2,5-dione, sodium salt (9CI)

MF (C6 H12 O7 . C6 H8 O4 . C4 H4 O4 . C4 H4 O3)x . x Na

CM 1

CM 2

Absolute stereochemistry.

CM 3

CM 5

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, homopolymer, sodium salt (9CI) MF (C6 H12 O7)x . x Na

CM 1

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Xylonic acid, calcium salt (9CI)
MF C5 H10 O6 . x Ca

Relative stereochemistry.

●x Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Xylonic acid, compd. with N,N-diethylethanamine (1:1) (9CI) MF C6 H15 N . C5 H10 O6

CM 1

Absolute stereochemistry.

CM 2

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with (8.alpha.,9R)-cinchonan-9-ol (1:1), monohydrate (9CI)

MF C19 H22 N2 O . C6 H12 O7 . H2 O

CM 1

CM 2

Absolute stereochemistry.

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Arabinonic acid, monosodium salt (9CI) MF C5 H10 O6 . Na

Absolute stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Xylonic acid, monopotassium salt (9CI) MF C5 H10 O6 . K

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, reaction products with citric acid, EDTA and triethanolamine, sodium salts

MF C10 H16 N2 O8 . C6 H15 N O3 . C6 H12 O7 . C6 H8 O7 . Na

CI MAN, GRS

THE COMPLETE SUBSTANCE MAY NOT BE REPRESENTED BY THESE COMPONENTS. CHECK THE CN OR IN FIELD FOR THE COMPLETE SUBSTANCE DESCRIPTION.

Page 160

CM 1

Na

CM 2

Absolute stereochemistry.

CM 3

$$_{\rm HO-\,CH_2-\,CH_2-\,OH}^{\rm CH_2-\,CH_2-\,OH}$$
 но- $_{\rm CH_2-\,CH_2-\,OH}^{\rm CH_2-\,CH_2-\,OH}$

CM 4

$$\begin{array}{c} {\rm CO_2H} \\ | \\ {\rm HO_2C-CH_2-C-CH_2-CO_2H} \\ | \\ {\rm OH} \end{array}$$

CM 5

$$\begin{array}{c|c} \text{CH}_2\text{--}\text{CO}_2\text{H} & \text{CH}_2\text{--}\text{CO}_2\text{H} \\ | & | & | \\ \text{HO}_2\text{C}\text{--}\text{CH}_2\text{--}\text{N}\text{--}\text{CH}_2\text{--}\text{CH}_2\text{--}\text{N}\text{--}\text{CH}_2\text{--}\text{CO}_2\text{H} \\ \end{array}$$

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Ribonic acid, iron(2+) salt, D- (8CI) MF C5 H10 O6 . x Fe

•x Fe(II)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, magnesium salt (2:1) (9CI)

MF C6 H12 O7 . 1/2 Mg

CI COM

Absolute stereochemistry.

●1/2 Mg

L30 320 ANSWERS

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN D-Gluconic acid, compd. with N,N''-bis(4-chlorophenyl)-3,12-diimino-IN2,4,11,13-tetraazatetradecanediimidamide (2:1), mixt. with ethanol, D-glucitol, sodium hydrogen carbonate and sodium thiocyanate (9CI)

MF C22 H30 Cl2 N10 . C6 H14 O6 . 2 C6 H12 O7 . C2 H6 O . C H2 O3 . C H N S . 2 Na

CI MXS

> CM1

 $HS-C \equiv N$

Na

Na

CM 3

 $_{\mathrm{H_3C^-CH_2^-OH}}$

CM 4

Absolute stereochemistry.

CM 5

CM 6

Absolute stereochemistry.

CM 7

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with 4-[2-[[3-(4-hydroxyphenyl)-1-methylpropyl]amino]ethyl]-1,2-benzenediol (1:1) (9CI)

MF C18 H23 N O3 . C6 H12 O7

Absolute stereochemistry.

REGISTRY COPYRIGHT 2004 ACS on STN 320 ANSWERS L30IN D-Gluconic acid, monorubidium salt (9CI) C6 H12 O7 . Rb MF

Absolute stereochemistry.

Rb

L30

320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN D-Gluconic acid, compd. with (9S)-10,11-dihydro-6'-methoxycinchonan-9-ol (1:1) (9CI)

C20 H26 N2 O2 . C6 H12 O7

CM

Absolute stereochemistry. Rotation (+).

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, chromium(3+) salt (3:1) (9CI) MF C6 H12 O7 . 1/3 Cr

Absolute stereochemistry.

●1/3 Cr(III)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with [1S-(1.alpha.,2.alpha.,5.beta.)]-5-(6-amino-2fluoro-9H-purin-9-yl)-3-(hydroxymethyl)-3-cyclopentene-1,2-diol (1:1)
(9CI)

MF C11 H12 F N5 O3 . C6 H12 O7

CM 1

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

Gluconic-6-t acid, potassium salt (7CI)

MF C6 H11 O7 T . K

IN

MF

K

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Ribonic acid, calcium salt (2:1) (9CI)

C5 H10 O6 . 1/2 Ca

Absolute stereochemistry.

●1/2 Ca

30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Gulonic acid, iron salt (8CI) MF C6 H12 O7 . x Fe

Relative stereochemistry.

$$\begin{array}{c|c} \text{OH} & \text{OH} \\ \\ \text{R} & \text{S} & \text{R} & \text{R} \\ \\ \text{OH} & \text{OH} \end{array}$$

 \bullet x Fe(x)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with N,N''-bis(4-chlorophenyl)-3,12-diimino2,4,11,13-tetraazatetradecanediimidamide (2:1), mixt. with sodium
phosphorofluoridate and xylitol (9CI)

MF C22 H30 Cl2 N10 . 2 C6 H12 O7 . C5 H12 O5 . F H2 O3 P . x Na

CI MXS

CM 1

•x Na

CM 2

CM 3

CM 4

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, copper salt, mixt. with 2-hydroxy-1,2,3propanetricarboxylic acid and 2-hydroxy-1,2,3-propanetricarboxylic acid
trisodium salt (9CI)

MF C6 H12 O7 . C6 H8 O7 . C6 H8 O7 . x Cu . 3 Na $\,$

CI MXS

CM 1

Absolute stereochemistry.

•x Cu(x)

CM 2

$$\begin{array}{c} \text{CO}_2\text{H} \\ | \\ \text{HO}_2\text{C}-\text{CH}_2-\text{C}-\text{CH}_2-\text{CO}_2\text{H} \\ | \\ \text{OH} \end{array}$$

$$\begin{array}{c} {\rm CO_2H} \\ | \\ {\rm HO_2C-CH_2-C-CH_2-CO_2H} \\ | \\ {\rm OH} \end{array}$$

●3 Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN L-Allonic acid, barium salt (2:1) (9CI)
MF C6 H12 O7 . 1/2 Ba

Absolute stereochemistry.

●1/2 Ba

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, lanthanum(3+) salt (9CI) MF C6 H12 O7 . x La

Absolute stereochemistry.

•x La(III)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Gluconic acid, compd. with (9S)-6'-methoxycinchonan-9-ol (1:1) (9CI)
MF C20 H24 N2 O2 . C6 H12 O7

CM 1

Absolute stereochemistry. Rotation (+).

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Gluconic acid, compd. with 1-deoxy-1-(dodecylamino)-D-glucitol (1:1)

(301)

MF C18 H39 N O5 . C6 H12 O7

CM 1

Absolute stereochemistry.

CM 2

Absolute stereochemistry.

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Hexonic acid, calcium salt (2:1) (9CI)

MF C6 H12 O7 . 1/2 Ca

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Xylonic acid, calcium salt (2:1) (9CI) MF C5 H10 O6 . 1/2 Ca

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, iron(3+) salt (2:1) (9CI) MF C6 H12 O7 . 1/2 Fe

Absolute stereochemistry.

●1/2 Fe(III)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Idonic acid, calcium salt (2:1), L- (8CI)
MF C6 H12 O7 . 1/2 Ca

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Talonic acid, monopotassium salt (9CI) MF C6 H12 O7 . K

Absolute stereochemistry.

• к

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN D-Gluconic acid, labeled with carbon-14, calcium salt (2:1) (9CI)
MF C6 H12 O7 . 1/2 Ca

Absolute stereochemistry.

●1/2 Ca

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Arabinonic acid, monosodium salt (9CI) MF C5 H10 O6 . Na

Relative stereochemistry.

Na

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Ribonic acid, iron(2+) salt (2:1), D- (8CI) MF C5 H10 O6 . 1/2 Fe

Absolute stereochemistry.

●1/2 Fe(II)

L30 320 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN D-Gluconic acid, calcium salt (2:1) (9CI)
MF C6 H12 O7 . 1/2 Ca
CI COM

Absolute stereochemistry.

●1/2 Ca

ALL ANSWERS HAVE BEEN SCANNED

=> fil capl; d que nos 144 FILE 'CAPLUS' ENTERED AT 16:30:01 ON 08 APR 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 8 Apr 2004 VOL 140 ISS 15 FILE LAST UPDATED: 7 Apr 2004 (20040407/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

23 SEA CALCIUM ASCORBATE 2552863 SEA C4./CT = Neoplasma

4 SEA (L80 OR L96) AND L85

8 SEA CA ASCORBATE

```
L4
                2 SEA FILE=REGISTRY ABB=ON CALCIUM ASCORBATE?/CN
L34
              308 SEA FILE=CAPLUS ABB=ON L4
               96 SEA FILE=CAPLUS ABB=ON L34(L)(THU OR BAC OR PAC OR PKT OR
L38
                   DMA)/RL
                                                                               Roles
                                               NEOPLAS?/CW
1.42
          318734 SEA FILE=CAPLUS ABB=ON
                                               ANTITUMOR AGENTS/CT
T<sub>1</sub>43
            95888 SEA FILE=CAPLUS ABB=ON
                                                                           THU - therapartic use
                5 SEA FILE=CAPLUS ABB=ON
                                               L38 AND (L42 OR L43)
                                                                          BAC - Bidlogical activity
PAC - pharmacologic activity
PKT - pharmacokinetics
DMA - drug mechanism of actor
=> fil medl cancer; d que nos 197; d que nos 194
FILE 'MEDLINE' ENTERED AT 16:30:01 ON 08 APR 2004
FILE 'CANCERLIT' ENTERED AT 16:30:01 ON 08 APR 2004
```

```
Submaderage

Todoug theropy

PC-prevention be control

PC-prevention be control

PC-prevention be control

AD-administration be dosage

R TU)/CT

PD-pharmacology

MAJ

PK-pharmacokinetics

TU-theropenticuse
L85
            2552863 SEA C4./CT
L88
              375710 SEA L85(L)(DT OR PC)/CT
              230605 SEA L88/MAJ
L89
              190717 SEA CALCIUM/CT
L90 _
               23899 SEA ASCORBIC ACID/CT
L91
               41822 SEA L90(L) (AD OR PD OR PK OR TU)/CT
L92
L93
               13067 SEA L91(L) (AD OR PD OR PK OR TU)/CT
                      5 SEA L89 AND L92/MAJ AND L93/MAJ
```

=> s 197 or 194

L80

L85 L96

L97

L195 7

7 L97 OR L94

=> fil embase; d que nos 1141

FILE 'EMBASE' ENTERED AT 16:30:03 ON 08 APR 2004 COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE COVERS 1974 TO 1 Apr 2004 (20040401/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

L4	2	SEA	FILE=REGISTRY ABB=ON CALCIUM ASCORBATE?/CN
L136			FILE=EMBASE ABB=ON L4
L137	23	SEA	FILE=EMBASE ABB=ON CALCIUM ASCORBATE/CT
L138	1190976	SEA	FILE=EMBASE ABB=ON NEOPLASM+NT/CT
T.14-1	3	SEA	FILE=EMBASE ABB=ON L138 AND (L136 OR L137)

=> fil wpids; d que nos 1171

FILE 'WPIDS' ENTERED AT 16:30:08 ON 08 APR 2004 COPYRIGHT (C) 2004 THOMSON DERWENT

FILE LAST UPDATED: 8 APR 2004 <20040408/UP>
MOST RECENT DERWENT UPDATE: 200424 <200424/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

- >>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
 PLEASE VISIT:
 http://www.stn-international.de/training center/patents/stn_guide.pdf <<<</pre>
- >>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE http://thomsonderwent.com/coverage/latestupdates/ <<<
- >>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER
 GUIDES, PLEASE VISIT:
 http://thomsonderwent.com/support/userguides/ <<<
- >>> ADDITIONAL POLYMER INDEXING CODES WILL BE IMPLEMENTED FROM DERWENT UPDATE 200403.

 THE TIME RANGE CODE WILL ALSO CHANGE FROM 018 TO 2004.

 SDIS USING THE TIME RANGE CODE WILL NEED TO BE UPDATED.

 FOR FURTHER DETAILS: http://thomsonderwent.com/chem/polymers/ <<<
- >>> NEW! FAST-ALERTING ACCESS TO NEWLY-PUBLISHED PATENT
 DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX
 FIRST VIEW FILE WPIFV. FREE CONNECT HOUR UNTIL 1 MAY 2004.
 FOR FURTHER DETAILS: http://www.thomsonderwent.com/dwpifv <<<

L165

124 SEA FILE=WPIDS ABB=ON (CA OR CALCIUM) (W) ASCORBATE
L168

96531 SEA FILE=WPIDS ABB=ON ?CANCER? OR ?TUMOR? OR ?TUMOUR? OR
?NEOPLAS? OR ?MALIGNAN? OR ?CARCINOM? OR ?METASTA?
L171

7 SEA FILE=WPIDS ABB=ON L165 AND L168 AND B/DC

Description of the color of t

=> dup rem 1195,144,1141,1171

FILE 'MEDLINE' ENTERED AT 16:30:23 ON 08 APR 2004

FILE 'CANCERLIT' ENTERED AT 16:30:23 ON 08 APR 2004

FILE 'CAPLUS' ENTERED AT 16:30:23 ON 08 APR 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'EMBASE' ENTERED AT 16:30:23 ON 08 APR 2004 COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'WPIDS' ENTERED AT 16:30:23 ON 08 APR 2004

COPYRIGHT (C) 2004 THOMSON DERWENT

PROCESSING COMPLETED FOR L195 PROCESSING COMPLETED FOR L44 PROCESSING COMPLETED FOR L141 PROCESSING COMPLETED FOR L171

15 DUP REM L195 L44 L141 L171 (7 DUPLICATES REMOVED) T₁196

> ANSWERS '1-4' FROM FILE MEDLINE ANSWERS '5-9' FROM FILE CAPLUS ANSWERS '10-11' FROM FILE EMBASE ANSWERS '12-15' FROM FILE WPIDS

=> d ibib ed ab hitrn 1-15

L196 ANSWER 1 OF 15 MEDLINE on STN DUPLICATE 4

ACCESSION NUMBER: 2000293934

MEDLINE

DOCUMENT NUMBER:

PubMed ID: 10834024

TITLE:

Effects of calcium and vitamin supplementation on colon

cell proliferation in colorectal cancer.

AUTHOR:

Cascinu S; Ligi M; Del Ferro E; Foglietti G; Cioccolini P; Staccioli M P; Carnevali A; Luigi Rocchi M B; Alessandroni

P; Giordani P; Catalano V; Polizzi V; Agostinelli R;

Muretto P; Catalano G

CORPORATE SOURCE:

Section of Experimental Oncology, Azienda Ospedaliera S.

Salvatore, Pesaro, Italy.. cascinu@yahoo.com

SOURCE:

Cancer investigation, (2000) 18 (5) 411-6.

Journal code: 8307154. ISSN: 0735-7907.

PUB. COUNTRY:

United States

DOCUMENT TYPE:

(CLINICAL TRIAL)

Journal; Article; (JOURNAL ARTICLE)

(RANDOMIZED CONTROLLED TRIAL)

LANGUAGE: English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200006

ENTRY DATE:

Entered STN: 20000622

Last Updated on STN: 20000622 Entered Medline: 20000613

EDEntered STN: 20000622

Last Updated on STN: 20000622 Entered Medline: 20000613

Calcium and antioxidant vitamins, such as A, C, and E, have been shown to reduce colorectal epithelial proliferation and thereby to act as possible chemoprotective agents in colorectal cancer. We investigated the effects of an intervention with calcium and vitamins on cell proliferation in the colonic mucosa of patients operated on for colorectal cancer. Patients with resected colorectal cancer Dukes' stage B-C were randomized to receive daily 30,000 IU of axerophthol palmitate (vitamin A) plus 1 g ascorbic acid (vitamin C) plus 70 mg of dl-alpha-tocopherol acetate (vitamin E) and 2 q natural calcium daily or indistinguishable placebo for

6 months. At the time of surgery and after 6 and 12 months of treatment, cell kinetics of normal colonic mucosa were assessed by using proliferating cell nuclear antigen (PCNA). Ninety patients were enrolled and 77 were assessable: 34 in the treatment group and 43 in the placebo group. A significant reduction of mean total PCNA labeling index (PCNALI) was evident in both groups after 6 months (vitamins/calcium, from 16.11 +/- 2.43 to 10.71 +/- 2.81; placebo, from 17.30 +/- 2.63 to 12.53 +/-3.40). The difference in the percentage of reduction of mean PCNALI between baseline and after 6 months was not statistically significant in the treatment and placebo groups: 34% and 28%, respectively. A second control, 6 months after discontinuation of vitamin and calcium supplementation, showed a further decrease of mean total PCNALI in both groups, but this was not statistically significant. Our randomized trial showed that calcium and vitamin supplementation does not reduce cell kinetics of colon epithelium. Furthermore, this study suggests the need for extreme caution in the interpretation and publication of studies on chemoprotectants in colon cancer without a control group.

L196 ANSWER 2 OF 15 MEDLINE on STN DUPLICATE 5

ACCESSION NUMBER: 93260737 MEDLINE DOCUMENT NUMBER: PubMed ID: 8492329

TITLE: No enhancing effects of calcium/magnesium salts of

L-glutamate and L-ascorbate on tumor development in a rat

medium-term multiorgan carcinogenesis bioassay.

AUTHOR: Tamano S; Tanaka H; Kawabe M; Asakawa E; Sano M; Shioya S;

Shirai T; Fukushima S

CORPORATE SOURCE: First Department of Pathology, Nagoya City University

Medical School, Japan.

SOURCE: Journal of toxicology and environmental health, (1993 May)

39 (1) 43-58.

Journal code: 7513622. ISSN: 0098-4108.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199306

ENTRY DATE: Entered STN: 19930625

Last Updated on STN: 19930625 Entered Medline: 19930617

ED Entered STN: 19930625

Last Updated on STN: 19930625

Entered Medline: 19930617

AB Calcium/magnesium salts of L-glutamate and L-ascorbate were tested for modification potential using a rat multiorgan carcinogenesis bioassay. Following sequential treatment with three different carcinogens (diethylnitrosamine, N-methylnitrosourea, and dihydroxydi-Npropylnitrosamine) over a 4-wk period, rats were given diet containing 5% monocalcium di-L-glutamate tetrahydrate (Ca-glutamate), 2.5% monomagnesium di-L-glutamate tetrahydrate (Mg-glutamate), 5% L-glutamic acid, 5% monocalcium di-L-ascorbate dihydrate (Ca-ascorbate), 2.5% monomagnesium di-L-ascorbate dihydrate (Mg-ascorbate), or 5% L-ascorbic acid for 16 wk. Body weight increase was slightly suppressed in the groups receiving Ca-ascorbate, Mg-ascorbate, and ascorbic acid supplementation after the carcinogen treatments. administration of Ca-glutamate or Ca-ascorbate raised urinary pH, ascorbic acid values were decreased. Concentrations of calcium and magnesium ions in the urine increased after ingestion of Ca-glutamate or Ca-ascorbate, and Mg-glutamate or Mg-ascorbate, respectively, but phosphorus levels decreased in all groups given calcium and magnesium salts. No consistent treatment-related changes in the concentrations of sodium or potassium ions in the urine were detected. Histopathological investigation at wk 20 did not

demonstrate any modification of tumorigenesis with regard to the incidence of frequency of lesions developing in the various target organs/tissues. The present results thus revealed no apparent enhancement of carcinogenesis at any site, including the urinary system, by calcium or magnesium salts using the present rat multiorgan carcinogenesis bioassay.

MEDLINE on STN DUPLICATE 6 L196 ANSWER 3 OF 15

MEDLINE ACCESSION NUMBER: 83166346 PubMed ID: 6835004 DOCUMENT NUMBER:

Inhibition of transplantable melanoma tumor development in TITLE:

mice by prophylactic administration of Ca-

ascorbate.

AUTHOR: Varga J M; Airoldi L

CA 26081 (NCI) CONTRACT NUMBER:

Life sciences, (1983 Apr 4) 32 (14) 1559-64. SOURCE:

Journal code: 0375521. ISSN: 0024-3205.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

English LANGUAGE:

Priority Journals FILE SEGMENT:

ENTRY MONTH: 198305

Entered STN: 19900318 ENTRY DATE:

> Last Updated on STN: 19970203 Entered Medline: 19830505

EDEntered STN: 19900318

> Last Updated on STN: 19970203 Entered Medline: 19830505

Hemicalcium ascorbate (Ca-Asc, 51 mM, 1% wt/vol), added to the drinking AB water, had the following effects in DBA/2 mice inoculated with 10(5) S91 (Cloudman) melanoma cells: 1) it delayed the appearance of visible tumors by 2-4 weeks; 2) it increased the survival rate at three months after tumor challenge by 12-50%; 3) it had no significant effect on the rate of tumor growth once the size of the tumors had reached 10 mm3; 4) the inhibition was maximal when the treatment with Ca-Asc was started at least one week prior to the inoculation of cells 5) when free ascorbic acid was used instead of Ca-Asc, the animals consumed 50% less water, they became dehydrated and the treatment was less effective; 6) Ca++ (51 mM) alone had no significant inhibitory effect. -- Since Ca Asc (1 mM) was not toxic to S91 melanoma cells in vitro, we suggest that prophylactic treatment of the animals with Ca-Asc inhibited tumor development by increasing the resistance of the host.

L196 ANSWER 4 OF 15 MEDLINE on STN ACCESSION NUMBER: 80076308 MEDITNE PubMed ID: 513697 DOCUMENT NUMBER:

TITLE: The influence of magnesium, calcium and vitamin C on tumor

growth in mice with breast cancer.

Frazier T G; McGinn M E AUTHOR:

Journal of surgical research, (1979 Nov) 27 (5) 318-20. SOURCE:

Journal code: 0376340. ISSN: 0022-4804.

United States PUB. COUNTRY:

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

Priority Journals

LANGUAGE: English

ENTRY MONTH: 198002

FILE SEGMENT:

Entered STN: 19900315 ENTRY DATE:

> Last Updated on STN: 19970203 Entered Medline: 19800215

EDEntered STN: 19900315

> Last Updated on STN: 19970203 Entered Medline: 19800215

Page 178

L196 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1 ACCESSION NUMBER: 2003:551366 CAPLUS DOCUMENT NUMBER: 139:106485 TITLE: A nutrient pharmaceutical formulation comprising polyphenols and use in treatment of cancer INVENTOR(S): Rath, Matthias; Netke, Shrirang; Niedzwiecki, Aleksandra PATENT ASSIGNEE(S): Neth. SOURCE: PCT Int. Appl., 39 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: PATENT INFORMATION: APPLICATION NO. DATE KIND DATE PATENT NO. ______ ____ _____ ______ WO 2003057201 A2 20030717 WO 2003-EP236 20030113 A3 WO 2003057201 20040311 AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2003170319 A1 20030911 US 2003-342044 20030113 A 20040225 A 20031110 BR 2003002672 BR 2003-2672 20030113 рк 2003-2672 NO 2003-3950 NO 2003003950 A 20030905 PRIORITY APPLN. INFO.: US 2002-348143P P 20020111 WO 2003-EP236 W 20030113 Entered STN: 18 Jul 2003 A nutrient pharmaceutical formulation compn. comprising ascorbic acid, AΒ L-lysine, L-proline and at least one polyphenol compd. selected from the group consisting of epigallocatechin gallate, epicatechin gallate, epigallocatechin, epicatechin, catechin and use of treatment in cancer and other tumors is provided. The effects of ascorbic acid, lysine, proline, and epigallochatechin gallate were studied for their anti-proliferative and anti-invasive potential in various human cancer cell lines. Nutrient pharmaceutical formulation compn. of Epican Forte and its method of use in preventing and treating cancer are disclosed. 5743-27-1, Calcium ascorbate RL: FFD (Food or feed use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (nutrient pharmaceutical formulation comprising polyphenols and use in treatment of cancer) L196 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2 ACCESSION NUMBER: 2002:184910 CAPLUS DOCUMENT NUMBER: 136:226782 Methods and compositions for potentiating cancer TITLE: chemotherapeutic agents using vitamin C derivatives Jariwalla, Raxit J. INVENTOR(S):

PATENT ASSIGNEE(S):

FAMILY ACC. NUM. COUNT:

DOCUMENT TYPE:

SOURCE:

LANGUAGE:

Oxycal Laboratories, Inc., USA

PCT Int. Appl., 41 pp.

CODEN: PIXXD2

Patent English

1

PATENT INFORMATION:

APPLICATION NO. DATE PATENT NO. KIND DATE ______ _____ WO 2002020023 A1 20020314 WO 2001-US26455 20010824 W: AU, CA, CN, IS, JP, KR, MX, NO, NZ, SG, TR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR 20021022 US 2000-654377 20000901 B1 US 6468980 20020322 AU 2001-85254 20030305 EP 2001-964398 A5 20010824 AU 2001085254 EP 1286674 A1 20010824 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR T2 20040318 JP 2004508335 JP 2002-524507 20010824 US 2000-654377 A 20000901 PRIORITY APPLN. INFO.: WO 2001-US26455 W 20010824

Entered STN: 15 Mar 2002 ED

The effect of cancer chemotherapeutic agents is potentiated by combination AB with mineral ascorbates, Vitamin C metabolites and/or a Vitamin C-derived furanone, illustratively a 4-hydroxy-5-methyl-3(2H)-furanone. Thus, ascorbate-contg. compns. improve the antineoplastic activity of adriamycin against both hepatoma and melanoma-derived cell lines. The enhancing effect is most prominent at low to moderate doses of the chemotherapeutic drug. Compns. contg. ascorbate plus metabolites are more effective in enhancing adriamycin activity than ascorbate alone. Triple mixts. contg. calcium ascorbate, calcium threonate and furanone (at ratio of 85:7.5:7.5) when combined with low-dose adriamycin suppress tumor cell proliferation at a level similar to or slightly better than a 10-fold higher dose or adriamycin alone. These results indicate the use of ascorbate plus metabolites in combination with low-dose chemotherapy with redn. of potential drug-assocd. toxicity.

5743-27-1, Calcium ascorbate IT

RL: MOA (Modifier or additive use); PAC (Pharmacological activity) ; THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(vitamin C derivs. for potentiating activity of cancer chemotherapeutic agents)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L196 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3

ACCESSION NUMBER:

2002:272794 CAPLUS

DOCUMENT NUMBER:

136:299725

TITLE:

Therapeutic combination of ascorbate with lysine or

arginine for prevention and treatment of cancer

INVENTOR(S):

Rath, Matthias

PATENT ASSIGNEE(S):

Neth.

SOURCE:

Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. ____ _____ -----______ EP 1195159 A1 20020410 EP 2000-121950 20001009

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, SI, LT, LV, FI, RO PRIORITY APPLN. INFO.: EP 2000-121950 20001009

ED Entered STN: 12 Apr 2002

A therapeutic compn. for the prevention and treatment of different forms AB of cancer in very elevated dosages of ascorbic acid and salts, L-Lysine

and L-proline, vitamins and trace elements.

5743-27-1, Calcium Ascorbate IT

RL: PAC (Pharmacological activity); THU (Therapeutic

use); BIOL (Biological study); USES (Uses)

(therapeutic combination of ascorbate with lysine or arginine for

prevention and treatment of cancer)

REFERENCE COUNT:

11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L196 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:167803 CAPLUS

DOCUMENT NUMBER:

134:202686

TITLE:

Methods and compositions for selective cancer

chemotherapy using a mineral ascorbate and a vitamin C

INVENTOR(S):

Jariwalla, Raxit J.

PATENT ASSIGNEE(S):

Oxycal Laboratories, Inc., USA

SOURCE:

PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND DATE	APPLICATION NO. DATE				
	TAIDNI NO.		AFFIDICATION NO. DATE				
	WO 2001015692	A1 20010308	WO 1999-US19449 19990830				
	W: AU, CA,	CN, IS, JP, KP,	MX, NO, NZ, SG, TR, US				
	RW: AT, BE,	CH, CY, DE, DK,	ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,				
	PT, SE		•				
	EP 1124550	A1 20010822	EP 1999-945197 19990830				
	R: AT, BE,	CH, DE, DK, ES,	FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
	IE, FI						
	JP 2003508437	T2 20030304	JP 2001-519906 19990830				
	NZ 511396	A 20030829	NZ 1999-511396 19990830				
	NO 2001002027	A 20010620	NO 2001-2027 20010425				
PRIC	RITY APPLN. INFO).:	WO 1999-US19449 W 19990830				
ED	ED Entered STN: 09 Mar 2001						
AB	A selective chemotherapy method includes contacting tumor cells with a						
	mineral ascorbate/vitamin C metabolite compn. A chemotherapeutic compn.						

AB mineral ascorbate/vitamin C metabolite compn. comprises the mineral ascorbate/vitamin C metabolite compn. in a pharmacol. acceptable i.v. carrier.

5743-27-1, Calcium ascorbate

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(mineral ascorbate/vitamin C metabolite compn. and method for selective cancer chemotherapy)

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L196 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1996:267742 CAPLUS

DOCUMENT NUMBER: TITLE:

124:332200 Inhibition of hepatocellular carcinoma development and

erythrocyte polyamine levels in ODS rats fed on 3'-methyl-4-dimethylaminoazobenzene by hemicalcium ascorbate, 2-0-octadecylascorbic acid, and ascorbyl

palmitate

AUTHOR (S):

Shimpo, Kan; Takahashi, Hisahide; Tsuda, Hiroyuki; Hibino, Tsutomu; Kawai, Kaoru; Kimura, Chiharu;

Nagatsu, Toshiharu; Fujita, Keisuke

Cook 09/830912 Page 181

CORPORATE SOURCE: School of Medicine, Fujita Health University, Toyoake,

470-11, Japan

SOURCE: Cancer Detection and Prevention (1996), 20(2), 137-45

CODEN: CDPRD4; ISSN: 0361-090X

PUBLISHER: Blackwell
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 07 May 1996

AB We examd. the modifying effect of hemicalcium ascorbate (Ca-Asc), and its lipophilic derivs., 2-O-octadecylascorbic acid (CV-3611) and ascorbyl palmitate (AscP), on hepatocarcinogenesis by 3'-methyl-4-

dimethylaminoazobenzene (3'-Me-DAB) in ODS rats (a mutant unable to synthesize ascorbic acid). Male 14-wk-old ODS rats were given a modified AIN-A diet or the diet contg. 0.06% 3'-Me-DAB, and drinking water contg. 0.1% ascorbic acid. Rats were divided into the following eight groups: Group 1, no treatment (basal diet alone); Group 2, Ca-Asc; Group 3,

CV-3611; Group 4, AscP; Group 5, 3'-Me-DAB; Group 6, 3'-Me-DAB + Ca-Asc; Group 7, 3'-Me-DAB + CV-3611; and Group 8, 3'-Me-DAB + AscP. Ca-Asc (2 g/kg), CV-3611 (0.2 g/kg), and AscP (0.6 g/kg) was administered once every day by gavage. 3'-Me-DAB was given in the basal diet. After 17 wk, animals were killed by exsanguination, and the liver was weighed and processed for histol. examn. Treatment by CV-3611 exerted a marked inhibitory effect on the development of 3'-Me-DAB-induced hepatocellular carcinomas (HCC) as measured by multiplicity. Although less effective than CV-3611, Ca-Asc and AscP also showed inhibitory effect. We have also studied the correlation of erythrocyte (RBC) polyamine levels and HCC

development. RBC polyamine levels were inhibited by Ca-Asc and its derivs., indicating it may be a marker of hepatocarcinogenesis.

TT 5743-27-1, Hemicalcium ascorbate

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(inhibition of hepatocellular carcinoma by hemicalcium ascorbate, 2-0-octadecylascorbic acid, and ascorbyl palmitate)

L196 ANSWER 10 OF 15 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.

on STN

ACCESSION NUMBER: 87122800 EMBASE

DOCUMENT NUMBER: 1987122800

TITLE: Absence of promotion potential for calcium L-ascorbate,

L-ascorbic dipalmitate, L-ascorbic stearate and erythorbic

acid on rat urinary bladder carcinogenesis.

AUTHOR: Fukushima S.; Ogiso T.; Kurata Y.; et al.

CORPORATE SOURCE: I Department of Pathology, Nagoa City University Medical

School, Mizuho-ku, Nagoya 467, Japan

SOURCE: Cancer Letters, (1987) 35/1 (17-25).

CODEN: CALEDO

COUNTRY: Ireland DOCUMENT TYPE: Journal

FILE SEGMENT: 037 Drug Literature Index

016 Cancer

LANGUAGE: English

L196 ANSWER 11 OF 15 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.

on STN

ACCESSION NUMBER: 84201189 EMBASE

DOCUMENT NUMBER: 1984201189

TITLE: Nutrition and melanoma.

AUTHOR: Wagner Jr. R.F.; DiSorbo D.M.; Nathanson L.

CORPORATE SOURCE: Department of Dermatology, Boston University School of

Medicine, Boston, MA, United States

SOURCE: International Journal of Dermatology, (1984) 23/7

Cook

(453-457). CODEN: IJDEBB

COUNTRY:

United States

DOCUMENT TYPE:

Journal

FILE SEGMENT:

037

Drug Literature Index Public Health 017 Public Health, Social Medicine and Epidemiology

029 Clinical Biochemistry

013 Dermatology and Venereology

016 Cancer

LANGUAGE:

English

Past and present research has focused primarily on the role of nutrition on the inhibition of melanoma growth and metastases. The application of nutritional manipulation in advanced human melanoma shows promise in the future clinical management of this disease. With the ability to culture melanocytes the influence of nutrition on the carcinogenesis of melanoma may be investigated. More detailed epidemiologic studies are required to define the role of nutrition in the development of human melanoma.

L196 ANSWER 12 OF 15 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER:

2004-133335 [14] WPTDS

DOC. NO. CPI:

C2004-053270

TITLE:

Composition used for preventing e.g. cardiovascular

disease and cancer, comprises vitamins, trace

minerals and phytonutrients.

DERWENT CLASS:

INVENTOR(S):

LO, E

B05

PATENT ASSIGNEE(S): (LOEE-I) LO E

COUNTRY COUNT:

PATENT INFORMATION:

PATENT NO KIND DATE WEEK LA PG CA 2325041 Al 20020517 (200414)* EN 3

APPLICATION DETAILS:

PATENT NO KIND APPLICATION DATE CA 2325041 A1 CA 2000-2325041 20001117

PRIORITY APPLN. INFO: CA 2000-2325041 20001117

AB

CA 2325041 A UPAB: 20040226

NOVELTY - Composition comprises:

- (a) vitamins comprising 500 mg vitamin C (calcium ascorbate), 400 IU vitamin E (as mixed vitamin E), 0.05 mg folic acid and 500 mcg vitamin B12;
 - (b) trace minerals comprising 90 mcg selenium, and
- (c) phytonutrients comprising 90 mcg proanthocyanidins as 90 mg maritime pine bark extract and grape seed extract in equal amounts.

ACTIVITY - Cardiovascular-Gen.; Cytostatic; Neuroprotective;

Nootropic; Antioxidant; Anticoagulant; Thrombolytic; Immunostimulant.

No biological data is given.

MECHANISM OF ACTION - None given.

USE - Used for preventing cardiovascular disease, cancer, Alzheimer's disease and age related dementia and illnesses and other diseases caused by or attributed to oxidative stress as listed in Annuals of Internal Medicine (American College of Physicians) 1987; 1097:526-545. The proanthocyanidins are powerful antioxidants with antiplatelet, antithrombotic and immune system enhancing properties.

ADVANTAGE - The composition mimics the endogenous antioxidant system

and the components have a synergistic action. Dwq.0/0

L196 ANSWER 13 OF 15 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2001-235065 [24] WPIDS

C2001-070430 DOC. NO. CPI:

Pulmonary administration of mineral ascorbates to treat TITLE: pulmonary disorders e.g. respiratory distress syndrome,

pneumonia, viral infection, asthma, lung cancer

and bronchitis.

DERWENT CLASS: B03 B05

ZIDICHOUSKI, J INVENTOR(S):

(OXYC-N) OXYCAL LAB INC PATENT ASSIGNEE(S):

COUNTRY COUNT: 31

PATENT INFORMATION:

PATENT NO KIND DATE WEEK T,A PG ______

WO 2001015777 A1 20010308 (200124)* EN 39

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

W: AU CA CN IS JP KP KR MX NO NZ SG TR US

A 20010326 (200137) AU 9957978

APPLICATION DETAILS:

P.	ATENT NO K	IND	API	PLICATION	DATE
W	0 2001015777	A1	WO	1999-US19977	19990831
A	J 9957978	A	ΑU	1999-57978	19990831
			WO	1999-US19977	19990831

FILING DETAILS:

PATENT NO	KIND	P.	ATENT NO
	-		
AII 9957978	A Based	on W	0 2001015777

PRIORITY APPLN. INFO: WO 1999-US19977 19990831

20010502

WO 200115777 A UPAB: 20011024

NOVELTY - Administration of a vitamin C component to the lung-air exchange surface of lung tissue wherein the Vitamin C component is a mineral ascorbate.

DETAILED DESCRIPTION - Pulmonary administration of a mineral ascorbate, where the ascorbate is selected from an alkaline earth metal ascorbate e.g. Mg or Ca ascorbate, a transition metal ascorbate e.g. zinc ascorbate or an alkali metal ascorbate e.g. sodium or potassium ascorbate. The composition for inhalation administration comprises an inhalable aerosol including solid particles of a mineral ascorbate or an inhalable aerosol of liquid particles containing the mineral ascorbate suspended in a carrier gas.

An INDEPENDENT CLAIM is also included for methods of applying a mineral ascorbate to the lung-exchange surface of the lung tissue comprising: (1) forming a composition comprising a particulate mineral ascorbate with particle size 0.5-10 microns or forming a liquid composition comprising a mineral ascorbate in a liquid carrier; (2) aerolizing the composition or liquid composition with a gaseous carrier; and (3) applying the aerosolized composition to the lung-air exchange surface of lung tissue by inhalation.

ACTIVITY - Antiinflammatory; antibacterial; virucide; antiasthmatic; tuberculostatic; cytostatic; antiallergic.

MECHANISM OF ACTION - None given.

Page 184

USE - Vitamin C compositions can be used to treat a wide variety of lung-specific conditions including infant and adult respiratory distress syndrome, age-related decrease in lung function, viral pneumonia, bacterial pneumonia, Group B streptococcal infections, oxygen toxicity, alpha -1-antiprotease deficiency, emphysema, asthma, the deleterious effects of smoking, tuberculosis, lung cancer, bronchitis, cystic fibrosis, mucopurulent and purulent exacerbation of simple mucoid bronchitis, bronchorrhea, bronchopneumonia, purulent pneumonia, pneumonic-alveolar consolidation, bronchiectasis, bronchocoele, post-transplantation obliterative bronchiolitis and allergenic bronchiolitis and chronic obstructive pulmonary disease. It may also be used as a pre-treatment to hyperbaric oxygen therapy. Other active agents may be co-administered in the composition including antivirals, antibacterials, fungicides, antibiotics, protease inhibitors, antioxidants, antiinflammatories, antiallergenics, beta -adrenergic agonists, sympathomimetic amines, mucolytics and chemotherapeutic agents.

ADVANTAGE - The composition allows direct pulmonary administration which is more efficient than oral administration and increases ascorbic

ADVANTAGE - The composition allows direct pulmonary administration which is more efficient than oral administration and increases ascorbic acid content at the lung-air exchange interface. Dwq.0/0

L196 ANSWER 14 OF 15 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 1993

1991-252364 [34] WPIDS

CROSS REFERENCE:

2002-739690 [80]

DOC. NO. CPI:

C1991-109601

TITLE:

Dietary multi-vitamin and mineral supplements -comprising bio flavonoid(s), L-glutathione and L-cysteine, etc., used for preventing cancer and cardiovascular and immunological disorders.

DERWENT CLASS:

B05 D13

INVENTOR(S):

DELUCA, D L; SLAGA, T J; SPARKS, W S

PATENT ASSIGNEE(S):

(TEXA) UNIV TEXAS SYSTEM; (LIFE-N) LIFESCIENCE CORP;

PG

(TEXA) UNIV TEXAS

WEEK

COUNTRY COUNT:

31

KIND DATE

PATENT INFORMATION:

PATENT NO

		THE PARTY NAMED IN THE	
WO	9111117	A 19910808 (199134)*	
	RW: AT BE	CH DE DK ES FR GB GR IT LU NL OA SE	
	W: AT AU	BB BR CA CH DE DK ES FI GB HU JP KP KR LK LU MC MW NL NO R	0
	SD SE	GU	
AU	9172414	A 19910821 (199147)	
EP	514451	A1 19921125 (199248) EN 69	
	R: AT BE	CH DE DK ES FI FR GB GR IT LI LU MC NL SE	
BR	9105986	A 19921110 (199250)	
JP	05505935	W 19930902 (199340) 69	
AU	646840	B 19940310 (199415)	
WO	9111117	A3 19910919 (199508)	
EP	514451	B1 19970115 (199708) EN 32	
	R: AT BE	CH DE DK ES FR GB GR IT LI LU NL SE	
DE	69124223	E 19970227 (199714)	

LA

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 514451	A1	EP 1991-904156	19910204
		WO 1991-US719	19910204
BR 9105986	A	BR 1991-5986	19910204
		WO 1991-US719	19910204
JP 05505935	W	JP 1991-504510	19910204

		WO	1991-US719	19910204
646840	В	ΑU	1991-72414	19910204
9111117	A3	WO	1991-US719	19910204
514451	B1	EP	1991-904156	19910204
		WO	1991-US719	19910204
69124223	E	DE	1991-624223	19910204
		EΡ	1991-904156	19910204
		WO	1991-US719	19910204
	646840 9111117 514451 69124223	9111117 A3 514451 B1	646840 B AU 9111117 A3 WO 514451 B1 EP WO 69124223 E DE EP	9111117 A3 WO 1991-US719 514451 B1 EP 1991-904156 WO 1991-US719

FILING DETAILS:

PAT	TENT NO	KIND		PATENT NO
ΕP	514451	A 1	Based on	WO 9111117
BR	9105986	A	Based on	WO 9111117
JP	05505935	W	Based on	WO 9111117
AU	646840	В	Previous Publ.	AU 9172414
			Based on	WO 9111117
ΕP	514451	B1	Based on	WO 9111117
DE	69124223	\mathbf{E}	Based on	EP 514451
			Based on	WO 9111117

PRIORITY APPLN. INFO: US 1990-475641 19900205

ED 19930806

AB WO 9111117 A UPAB: 20021216

Daily dietary multivitamin and mineral supplement comprises bioflavonoids, L-glutathione (reduced), L-cysteine, potassium sorbate/sorbic acid, butylated hydroxyanisole, butylated hydroxytoluene, propyl gallate, sodium benzoate, taurine, D,L-methionine, L-glutamine, SOD and catalase (pref. in concentrate), and opt. vitamin A, B-carotene, vitamin E, Ca ascorbate, Cu, Zn, Mn, Se, omega-3 fish oil, inositol, para-aminobenzoic acid, folic acid, vitamin B1, vitamin B2, niacinamide, vitamin B6, vitamin B12, vitamin D3, biotion, Ca pantothenate, vitamin K1, Ca, I, K, Fe, Mg, Cr, Mo, V, Si and B.

Also claimed are other supplements including a supplement including 10-300 mg of butylated hydroxytoluene and a supplement including 10-300 mg of butylated hydroxyanisole.

USE/ADVANTAGE - Used in oral sustanined release tablets for preventing cancer. The supplements are also used for preventing cardiovascular and immunological disorders and for increasing longevity.

```
L196 ANSWER 15 OF 15 WPIDS COPYRIGHT 2004 THOMSON DERWENT ON STN
```

ACCESSION NUMBER: 1987-215272 [31] WPIDS

CROSS REFERENCE: 1989-078565 [11]; 1990-185609 [24]; 1991-132572 [18];

1992-032631 [04]; 1995-161580 [21]

DOC. NO. CPI: C1987-090337

TITLE: Emulsion contq. brominated per-fluorocarbon and

emulsifier - useful for transporting oxygen to animal

tissues and as contrast enhancement agents.

DERWENT CLASS: A96 B01 B05 P31

INVENTOR(S): LONG, D M

PATENT ASSIGNEE(S): (ALLI-N) ALLIANCE PHARM CORP; (FLUO-N) FLUOROMED PHARM;

(LONG-I) LONG D M

COUNTRY COUNT: 19

PATENT INFORMATION:

PAT	TENT NO	KIND I	DATE	WEEK	LA	PG
מם	231070	7\ ^	10070005	(198731)*	ביאד	10
EP	231070	Α.	190/0003	(190/31)"	E14	10
	R: AT BE	CH DI	E ES FR G	B IT LI L	U NL	SE
ΑU	8767516	A :	19870716	(198735)		
NO	8700130	A 2	19870810	(198737)		

```
A 19871009 (198751)
ZA 8700252
JP 01139526 A 19890601 (198928)
US 4865836 A 19890912 (198946)
CA 1279011
            C 19910115 (199109)
US 5080885
            A 19920114 (199206)
             B 19930809 (199337)
NO 173214
US 5393513 A 19950228 (199514)
EP 231070 B1 19980610 (199827)
                                   EN
   R: AT BE CH DE ES FR GB IT LI LU NL SE
DE 3752194 G 19980716 (199834)
ES 2120400
              T3 19981101 (199851)
IE 81097
             B 20000308 (200028)
```

Cook

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 231070	A	EP 1987-300248	19870113
ZA 8700252	A	ZA 1987-252	19870114
JP 01139526	A	JP 1987-5201	19870114
US 5080885	A	US 1989-387947	19890824
NO 173214	В	NO 1987-130	19870113
US 5393513	A Cont of	US 1986-818690	19860114
	Cont of	US 1989-387947	19890824
	Cont of	US 1991-811026	19911219
		US 1993-100664	19930730
EP 231070	B1	EP 1987-300248	19870113
DE 3752194	G	DE 1987-3752194	19870113
		EP 1987-300248	19870113
ES 2120400	Т3	EP 1987-300248	19870113
IE 81097	В	IE 1987-92	19870114

FILING DETAILS:

PAT	TENT NO	KIND		PAT	FENT NO	_
NO	173214	В	Previous Publ.	NO	8700130	_
US	5393513	Α	Cont of	US	4865836	
			Cont of	US	5080885	
DE	3752194	G	Based on	ΕP	231070	
ES	2120400	Т3	Based on	EP	231070	

PRIORITY APPLN. INFO: US 1986-818690 19860114; JP 1987-5201 19870114; US 1989-387947 19890824; US

> 19911219; US 1993-100664 1991-811026 19930730

ED 19930803

AB 231070 A UPAB: 20000613

- (1) Emulsion capable of carrying O2 to animal tissues within an animal body comprises an aq. phase, a brominated perfluorocarbon (I) and a minor amount of an emulsifying agent (II) in combination with a biocompatible quantity of cholesterol, steroid hormone and/or tocopherol.
- (2) Emulsion capable of carrying O2 to animal tissues in an animal body comprises an aq. phase, (I) and a minor amount of (II). In the non-frozen state after heat sterilisation 95% of the emulsified (I) exists as particles less than 400 nm with a mean dia. less than 150nm, esp. after storage for over 1 month. The emulsion may contain a steroid hormone, cholesterol, tocopherol, phospholipid, anionic surfactant, polyoxyethylene- polyoxypropylene copolymer, and the emulsifying agent may be a fluorinated surfactant. The steroid hormone is esp. a fluorinated cpd., e.g. with a 6alpha-F or 9alpha-F. An antioxidant, e.g. a tocopherol, ascorbic acid or Ca ascorbate, may be present.

USE/ADVANTAGE - The emulsions are useful as non-toxic O2 transport

and contrast enhancement agents. They are stable can be sterilised and can be used internally and intravenously even after sterilisation and storage for 1 month or more, the size characteristics are maintained. The particle size is sufficiently small for O2 transport in the cerebrospinal system, eye and tracheobronchial passages etc. as well as in the blood stream.

In an example, an emulsion contg. 25 wt.% perfluoro-octyl bromide, 4 wt.% lecithin, 0.04 wt.% L-alkpha-tocopherol, 2.21 wt.% glycerol, 0.012 wt.% Na2HPO4, 0.057 wt.% NaHPO4 and an aq. phase was prepd. It was successfully used for exchange transfusions in female rats. Dwg.0/0

=> fil capl; d que nos 154; d que nos 156

FILE 'CAPLUS' ENTERED AT 16:31:48 ON 08 APR 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 8 Apr 2004 VOL 140 ISS 15 FILE LAST UPDATED: 7 Apr 2004 (20040407/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

```
2 SEA FILE=REGISTRY ABB=ON "ASCORBIC ACID"/CN
L5
L35
          69883 SEA FILE=CAPLUS ABB=ON L5
           7145 SEA FILE=CAPLUS ABB=ON L35(L) (THU OR BAC OR PAC OR PKT OR
L39
                DMA)/RL
         318734 SEA FILE=CAPLUS ABB=ON
                                        NEOPLAS?/CW
L42
L43
          95888 SEA FILE=CAPLUS ABB=ON
                                        ANTITUMOR AGENTS/CT
L46
           1359 SEA FILE=CAPLUS ABB=ON
                                        L5/D
            201 SEA FILE=CAPLUS ABB=ON L39(L) (CANCER? OR ?NEOPLAS? OR
L49
                ?CARCINOM?)/BI
L51
           4208 SEA FILE=CAPLUS ABB=ON L35(L)THU/RL
             41 SEA FILE=CAPLUS ABB=ON L51 AND L42 AND L43 AND L49 NOT L46
L53
             6 SEA FILE=CAPLUS ABB=ON L53 AND REVIEW/DT
L54
```

				answers to answers & OR patents & neview articles
L5	2	SEA FILE=REGISTRY ABB=0	ON "ASCORBIC ACID"/CN	answers to
L35	69883	SEA FILE=CAPLUS ABB=ON	L5	antents of
L39	7145	SEA FILE=CAPLUS ABB=ON	L35(L) (THU OR BAC OR PAC OR PKT	OR par titles
		DMA)/RL		an Jew and
L42	318734	SEA FILE=CAPLUS ABB=ON	NEOPLAS?/CW	March
L43	95888	SEA FILE=CAPLUS ABB=ON	ANTITUMOR AGENTS/CT	1 nouse The
L46	1359	SEA FILE=CAPLUS ABB=ON	L5/D	Blowny
L49	201	SEA FILE=CAPLUS ABB=ON	L39(L) (CANCER? OR ?NEOPLAS? OR	because there were so mounty
		<pre>?CARCINOM?)/BI</pre>		7000
L51	4208	SEA FILE=CAPLUS ABB=ON	L35(L)THU/RL	
L53	41	SEA FILE=CAPLUS ABB=ON	L51 AND L42 AND L43 AND L49 NOT	L46
L55	4319379	SEA FILE=CAPLUS ABB=ON	PATENT/DT	
¿L:56-	13	SEA FILE=CAPLUS ABB=ON	L55 AND L53	

=> s (154 or 156) not 144

L197 18 (L54 OR L56) NOT (L44)

Printed

FILE 'MEDLINE' ENTERED AT 16:31:49 ON 08 APR 2004

FILE 'CANCERLIT' ENTERED AT 16:31:49 ON 08 APR 2004

```
L83
          23899 SEA ASCORBIC ACID/CT
L85
        2552863 SEA C4./CT
         375710 SEA L85(L)(DT OR PC)/CT
L88
L89
         230605 SEA L88/MAJ
          13067 SEA L83(L) (AD OR PD OR PK OR TU)/CT
L99
L100
           6260 SEA L99/MAJ
           7226 SEA DIETARY SUPPLEMENTS/CT
L103
L104
          51397 SEA DRUG SYNERGISM/CT
         143688 SEA ANTINEOPLASTIC AGENTS/CT
L107
L108
         103144 SEA L107/MAJ
         101371 SEA ANTINEOPLASTIC COMBINED CHEMOTHERAPY PROTOCOLS/CT
L110
L113
           5821 SEA L100 NOT (L103 OR L104 OR L110)
             31 SEA L89 AND L113 AND L108
L114
          12349_SEA_(VITAMIN C OR ASCORBIC ACID) /TI
L115
          ____20_SEA_L114_AND_L115___
L116
```

=> s l116 not l195

E198 20 L116_NOT (L195) president

=> fil embase; d que nos 1152

FILE 'EMBASE') ENTERED AT 16:31:51 ON 08 APR 2004 COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE COVERS 1974 TO 1 Apr 2004 (20040401/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

L144 2358 SEA FILE=EMBASE ABB=ON L143/MAJ L145 114 SEA FILE=EMBASE ABB=ON L144 AND L139/MAJ L146 29649 SEA FILE=EMBASE ABB=ON DRUG POTENTIATION/CT L148 107 SEA FILE=EMBASE ABB=ON L145 NOT L146 L149 484978 SEA FILE=EMBASE ABB=ON GENERAL REVIEW/DT	L138 L139 L142 L143
L149 484978 SEA FILE=EMBASE ABB=ON GENERAL REVIEW/DT L150 19 SEA FILE=EMBASE ABB=ON L148 AND L149 L151 235050 SEA FILE=EMBASE ABB=ON DIET? L152 10 SEA FILE=EMBASE ABB=ON L150 NOT L151	L145 L146 L148 L149 L150

=> s 1152 not 1141

L199 10 L152 NOT (141) provide

=> fil wpids; d que nos 1188

FILE 'WPIDS' ENTERED AT 16:31:52 ON 08 APR 2004

COPYRIGHT (C) 2004 THOMSON DERWENT

FILE LAST UPDATED: 8 APR 2004 <20040408/UP>
MOST RECENT DERWENT UPDATE: 200424 <200424/DW>
{DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
PLEASE VISIT:

http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

- >>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE http://thomsonderwent.com/coverage/latestupdates/ <<<
- >>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER GUIDES, PLEASE VISIT: http://thomsonderwent.com/support/userguides/ <<<
- >>> ADDITIONAL POLYMER INDEXING CODES WILL BE IMPLEMENTED FROM DERWENT UPDATE 200403.

 THE TIME RANGE CODE WILL ALSO CHANGE FROM 018 TO 2004.

 SDIS USING THE TIME RANGE CODE WILL NEED TO BE UPDATED.

 FOR FURTHER DETAILS: http://thomsonderwent.com/chem/polymers/ <<<
- >>> NEW! FAST-ALERTING ACCESS TO NEWLY-PUBLISHED PATENT
 DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX
 FIRST VIEW FILE WPIFV. FREE CONNECT HOUR UNTIL 1 MAY 2004.
 FOR FURTHER DETAILS: http://www.thomsonderwent.com/dwpifv <<<

L166	12164	SEA	FILE=WPIDS	ABB=ON	ASCORBIC ACID OR VITAMIN C
L180	4027	SEA	FILE=WPIDS	ABB=ON	(ASCORBIC ACID OR VITAMIN C)/TI
L181	42334	SEA	FILE=WPIDS	ABB=ON	(CANCER? OR TUMOR# OR TUMOUR# OR
		NEOF	PLAS? OR AN	rineopla	S?)/TI
L182	56	SEA	FILE=WPIDS	ABB=ON	L180 AND L181 AND B/DC
L183	707812	SEA	FILE=WPIDS	ABB=ON	COMB?
L184	60893	SEA	FILE=WPIDS	ABB=ON	DIET?
L185	40	SEA	FILE=WPIDS	ABB=ON	L182 NOT (L183 OR L184)
L186	1059	SEA	FILE=WPIDS	ABB=ON	L166(2A)(DERIV? OR ANALOG?)
L187	29	SEA	FILE=WPIDS	ABB=ON	L185 NOT L186
L188	19	-SEA	FILE=WPIDS	ABB=ON	L187_NOT_PY>1998

=> s 1188 not 1171

L200 19 L188 NOT (L171)

=> dup rem 1198,1197,1199,1200
FILE 'MEDLINE' ENTERED AT 16:32:15 ON 08 APR 2004

FILE 'CANCERLIT' ENTERED AT 16:32:15 ON 08 APR 2004

FILE 'CAPLUS' ENTERED AT 16:32:15 ON 08 APR 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'EMBASE' ENTERED AT 16:32:15 ON 08 APR 2004 COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'WPIDS' ENTERED AT 16:32:15 ON 08 APR 2004

COPYRIGHT (C) 2004 THOMSON DERWENT

PROCESSING COMPLETED FOR L198
PROCESSING COMPLETED FOR L197
PROCESSING COMPLETED FOR L199
PROCESSING COMPLETED FOR L200

L201 _____58_DUP_REM_L198_L197_L199_L200 (9_DUPLICATES_REMOVED)

ANSWERS '1-11' FROM FILE MEDLINE ANSWERS '12-29' FROM FILE CAPLUS ANSWERS '30-39' FROM FILE EMBASE ANSWERS '40-58' FROM FILE WPIDS

=> d ibib ed ab hitrn 1-58

L201 ANSWER 1 OF 58 MEDLINE on STN DUPLICATE 1

ACCESSION NUMBER: 2000449581 MEDLINE DOCUMENT NUMBER: PubMed ID: 11003563

TITLE: Tumor invasion is inhibited by phosphorylated ascorbate via

enrichment of intracellular **vitamin C** and decreasing of oxidative stress.

AUTHOR: Nagao N; Nakayama T; Etoh T; Saiki I; Miwa N

CORPORATE SOURCE: Department of Cell Biochemistry, Hiroshima Prefectural

University School of BioSciences, Shobara, Japan.

SOURCE: Journal of cancer research and clinical oncology, (2000

Sep) 126 (9) 511-8.

Journal code: 7902060. ISSN: 0171-5216. GERMANY: Germany, Federal Republic of Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

PUB. COUNTRY: DOCUMENT TYPE:

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200009

ENTRY DATE: Entered STN: 20001005

Last Updated on STN: 20001005 Entered Medline: 20000927

ED Entered STN: 20001005

Last Updated on STN: 20001005 Entered Medline: 20000927

AB Tumor metastasis and invasion were shown to be inhibited by the 2-O-phosphorylated form (Asc2P) of L-ascorbic acid (Asc); intact Asc did not inhibit tumor invasion when added once, but appreciably inhibited it upon repeated addition. The anti-metastatic effect is attributable to a marked enrichment of intracellular Asc by Asc2P, subsequently dephosphorylated. Asc2P scavenged most of the intracellular reactive oxygen species (ROSin), and notably inhibited production of matrix metalloproteases and cell motility. ROSin was decreased by Asc2P more markedly than by Asc added once. Thus, involvement of ROSin in tumor invasion and a potent anti-metastatic therapy by ROSin-decreasing agents are suggested.

L201 ANSWER 2 OF 58 MEDLINE on STN DUPLICATE 2

ACCESSION NUMBER: 1998124143 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9464496

TITLE: Growth suppression of malignant leukemia cell line in vitro

by ascorbic acid (vitamin
C) and its derivatives.

AUTHOR: Roomi M W; House D; Eckert-Maksic M; Maksic Z B; Tsao C S

CORPORATE SOURCE: Linus Pauling Institute of Science and Medicine, Palo Alto,

CA 94306, USA.

SOURCE: Cancer letters, (1998 Jan 9) 122 (1-2) 93-9.

Journal code: 7600053. ISSN: 0304-3835.

PUB. COUNTRY: Ireland

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

199802

ENTRY DATE:

Entered STN: 19980226

Last Updated on STN: 19980226 Entered Medline: 19980219

ED Entered STN: 19980226

Last Updated on STN: 19980226 Entered Medline: 19980219

In recent years there has been a growing interest in the therapeutic AB application of L-ascorbic acid (AA) and its derivatives as anticancer agents. AA is a gamma-crotonolactone derivative with reactive hydroxyl groups at the 2- and 3-positions and an ethylene glycol substitution at the 4-position. Despite the various reports on AA toxicity, no work has been reported underlying the critical chemical structural features for its activity. The present study addresses this question. We tested in vivo, using malignant leukemia cell line P388D1, (i) L-AA and its isomers, (ii) substitution at the 2-position: -PO4, -SO4, O-Me, O-octadecyl, (iii) substitution at the 6-position: -PO4, -SO4, -palmitate, -stearate, (iv) substitution at the 2,6-position: dipalmitate, (v) 6-deoxy derivative: -Cl, -Br, -NH2 and (vi) dihydroxy gamma-crotonolactone with substitutions at the 4-position: -H, -CH3, -CH2-CH3 and -CH=CH2. L-AA and its isomers were very cytotoxic even at very low concentration. All 6-substituted and 6-deoxy derivatives were as toxic as AA. However, 2-substituted and 2,6-disubstituted AA derivatives were non-toxic. Interestingly, dihydroxy gamma-crotonolactone with or without substitution at the 5-position also exhibited toxicity. These results suggest that the underlying criterion for AA toxicity resides in dihydroxy gamma-crotonolactone moiety. Either substitution in the hydroxy groups or saturating the double bond render the molecule inactive.

L201 ANSWER 3 OF 58 MEDLINE on STN DUPLICATE 3

ACCESSION NUMBER: 97344922 MEDLINE DOCUMENT NUMBER: PubMed ID: 9201289

TITLE: Ascorbic acid and 6-deoxy-6-chloro-

ascorbic acid: potential anticancer

drugs.

AUTHOR: Osmak M; Kovacek I; Ljubenkov I; Spaventi R; Eckert-Maksic

M

CORPORATE SOURCE: Department of Molecular Medicine, Ruder Boskovic Institute,

Zagreb, Croatia.

SOURCE: Neoplasma, (1997) 44 (2) 101-7.

Journal code: 0377266. ISSN: 0028-2685.

PUB. COUNTRY: Czech Republic

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199707

ENTRY DATE: Entered STN: 19970805

Last Updated on STN: 19970805 Entered Medline: 19970723

ED Entered STN: 19970805

Last Updated on STN: 19970805 Entered Medline: 19970723

AB The role of ascorbic acid (AA) in prevention and suppression of carcinogenesis has been known for a long time. It was also found that AA may inhibit the growth of some tumor cells in vitro and in vivo. We examined the influence of ascorbic acid and 6-chloro-6-deoxy ascorbic acid (6-Cl-AA) on the growth of various human cell lines: lung fibroblasts (Hef), ovarian adenocarcinoma (OVCAR), colon adenocarcinoma (HT-29), laryngeal carcinoma (HEp2) cells, HEp2 cells resistant to vincristine (HEp2VA3), cervical carcinoma (HeLa) cells, HeLa cells resistant to cisplatin (Helacis), breast adenocarcinoma (SK-BR-3) cells, and SK-BR-3

resistant to doxorubicin (SK-BR-3-Dox), as well as mouse fibroblasts L929, mouse melanoma B16 (Mel B16) cells and Chinese hamster fibroblasts (V79). Both drugs arrested the growth of: HeLa, SK-BR-3, SK-BR-3-Dox, L929, and Mel B16 cells, but did not influence the growth of others: Hef, OVCAR, HEp2, HEp2VA3 and V79. 6-Cl-AA suppressed more the proliferation of HeLacis, SK-BR-3-Dox and Mel B16 cells than AA, while AA was active only against HT-29 cells. Inhibitory effect of 6-Cl-AA was confirmed by the in vivo experiments on solid melanoma B16 tumors. Our results indicate that AA and 6-Cl-AA could serve as potential antitumor agents, especially against some tumor cells resistant to chemotherapy.

L201 ANSWER 4 OF 58 MEDLINE on STN DUPLICATE 4

ACCESSION NUMBER: 92329676 MEDLINE DOCUMENT NUMBER: PubMed ID: 1627740

TITLE: Ascorbic acid with cupric ions as a

chemotherapy for human lung tumor xenografts implanted

beneath the renal capsule of immunocompetent mice.

AUTHOR: Leung P Y; Dunham W B; Tsao C S

CORPORATE SOURCE: Linus Pauling Institute of Science and Medicine, Palo Alto,

California 94306.

SOURCE: In vivo (Athens, Greece), (1992 Jan-Feb) 6 (1) 33-40.

Journal code: 8806809. ISSN: 0258-851X.

PUB. COUNTRY: Greece

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199208

ENTRY DATE: Entered STN: 19920904

Last Updated on STN: 19970203 Entered Medline: 19920820

ED Entered STN: 19920904

Last Updated on STN: 19970203 Entered Medline: 19920820

The growth of human lung carcinoma xenografts implanted beneath the renal capsule of immunocompetent mice was investigated (the six-day subrenal capsule assay) by using combinations of ascorbic acid and cupric ions. A maximum suppression of growth of this human lung tumor, LX-1, was observed at an estimated consumption level by the mice of 6 to 8 g ascorbic acid and 2 to 5 mg cupric ions per day per kg body weight. The data suggest that more than one oxidative or degradative product of ascorbic acid or of some copper compounds may be responsible for the observed antitumor activities, and that the chemotherapeutic effect is being produced at some stoichiometric ratios of ascorbic acid to cupric ions. When such a combination of the two substances was consumed by the mice, optimal therapeutic effect was exerted on the implanted xenografts.

L201 ANSWER 5 OF 58 MEDLINE on STN DUPLICATE 5

ACCESSION NUMBER: 90117976 MEDLINE DOCUMENT NUMBER: PubMed ID: 2609524

TITLE: [The effect of tocopherol and ascorbic

acid on the development of experimental esophageal

tumors].

Vliianie tokoferola i askorbinovoi kisloty na razvitie

eksperimental'nykh opukholei pishchevoda.

AUTHOR: Bespalov V G; Troian D N; Petrov A S; Aleksandrov V A

SOURCE: Voprosy onkologii, (1989) 35 (11) 1332-6.
Journal code: 0413775. ISSN: 0507-3758.

PUB. COUNTRY: USSR

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: Russian

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199002

Page 194

ENTRY DATE:

Entered STN: 19900328

Last Updated on STN: 19900328 Entered Medline: 19900212

Entered STN: 19900328

Last Updated on STN: 19900328 Entered Medline: 19900212

The study was concerned with the influence of tocopherol and ascorbic acid on induction of tumors by N-nitrososarcosine ethyl ester (NSEE) in rats. In the first series of experiments, NSEE was given orally in the daily dose of 100 mg/kg body weight during 8 weeks while alpha-tocopherol acetate was administered in the dose of 600 mg/kg food during the following 32 weeks. In the second series, NSEE was given intragastrically in the dose of 50 mg/kg body weight daily during 16 weeks whereas for the following 16 weeks, the animals received 20 g/kg food ascorbic acid. rats were sacrificed at 40 (series 1) and 32 weeks (series 2) of the experiment. NSEE induced tumors of the esophagus and forestomach in more than 90% of cases, mainly papillomas and--less frequently--carcinomas, five tumors per rat, on the average. Treatment with tocopherol was followed by a 37% decrease in the incidence of esophageal and forestomach tumors, an approximately two-fold drop in their multiplicity as well as by lowered incidence of carcinomas. Ascorbic acid did not affect tumor induction.

L201 ANSWER 6 OF 58 MEDLINE on STN

ACCESSION NUMBER: DOCUMENT NUMBER:

92135570 MEDLINE PubMed ID: 2979831

TITLE:

In vivo antineoplastic activity of ascorbic

acid for human mammary tumor.

AUTHOR:

Tsao C S; Dunham W B; Leung P Y

CORPORATE SOURCE:

Linus Pauling Institute of Science and Medicine, Palo Alto,

CA 94306.

SOURCE:

In vivo (Athens, Greece), (1988 Mar-Apr) 2 (2) 147-50.

Journal code: 8806809. ISSN: 0258-851X.

PUB. COUNTRY:

Greece

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

199203

ENTRY DATE:

Entered STN: 19920329

Last Updated on STN: 19920329 Entered Medline: 19920309

ED Entered STN: 19920329

Last Updated on STN: 19920329

Entered Medline: 19920309

AB The effect of ascorbic acid on the growth of human mammary tumor xenografts was investigated using the 6-day subrenal capsule assay method. The results showed that ascorbic acid (1 or 5 g/liter) administered in the drinking water significantly inhibited the growth of tumor fragments implanted beneath the renal capsule of immunocompetent mice. The results agree with other work carried out in animal experiments with animal tumors. Administration of ascorbic acid in the mouse diet did not affect the growth of the human mammary tumor fragments within the 6-day experimental period. Tumor growth was inhibited when mice were fed a diet containing ascorbic acid (50g/kg diet) together with cupric sulfate (18 or 90 mg/liter) in the drinking water. The results support the hypothesis that certain oxidation and degradation products of ascorbic acid are active antineoplastic agents for the human mammary carcinoma studied.

L201 ANSWER 7 OF 58

MEDLINE on STN

DUPLICATE 7

DUPLICATE 6

ACCESSION NUMBER: 89210433 MEDLINE DOCUMENT NUMBER:

PubMed ID: 2854047

TITLE:

[Effect of ascorbic acid on the

hepatocarcinogenic action of N-nitrosodiethylamine in

ratsl.

Vliianie askorbinovoi kisloty na gepatokantserogennoe

deistvie N-nitrozodietilamina u krys.

AUTHOR: Birk R V; Kil'dema L A; Teras L E

SOURCE: Eksperimental'naia onkologiia, (1988) 10 (6) 66-8.

Journal code: 8406659. ISSN: 0204-3564.

PUB. COUNTRY: USSR

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: Russian

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198905

ENTRY DATE: Entered STN: 19900306

Last Updated on STN: 19900306

Entered Medline: 19890526

ED Entered STN: 19900306

Last Updated on STN: 19900306 Entered Medline: 19890526

It is shown that the ascorbic acid (AA) administration to Wistar male rats

(50 mg per animal intraperitoneally 3 times a week) accelerates hepatocarcinogenesis induced by N-nitrosodiethylamine (2.5 mg/kg 6 times a week in drinking water). In this case the activity of glucose-6-phosphate

dehydrogenase in liver increases, while that of glucose-6-phosphatase

decreases.

AB

AUTHOR:

L201 ANSWER 8 OF 58 MEDLINE on STN DUPLICATE 8

ACCESSION NUMBER: 83014837 MEDLINE DOCUMENT NUMBER: PubMed ID: 7122455

TITLE: [Effect of ascorbic acid on the

formation and leukemogenic action of p-hydroxyphenyllactic

acid].

Vliianie askorbinovoi kisloty na obrazovanie i leikozogennoe deistvie p-oksifenilmolochnoi kisloty.

Raushenbakh M O; Ivanova V D; Baikova V N; Vares I M;

Levchuk A A

SOURCE: Problemy gematologii i perelivaniia krovi, (1982 Jul) 27

(7) 3-6.

Journal code: 0401232. ISSN: 0552-2080.

PUB. COUNTRY: USSR

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: Russian

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198212

ENTRY DATE: Entered STN: 19900317

Last Updated on STN: 19900317

Entered Medline: 19821203

ED Entered STN: 19900317

Last Updated on STN: 19900317 Entered Medline: 19821203

L201 ANSWER 9 OF 58 MEDLINE on STN DUPLICATE 9

ACCESSION NUMBER: 82139030 MEDLINE DOCUMENT NUMBER: PubMed ID: 7199470

TITLE: Anti-tumour activity of novel adducts of ascorbic

acid with aldehydes.
Elvin P: Slater T F

AUTHOR: Elvin P; Slater T F

SOURCE: European journal of cancer & clinical oncology, (1981 Jul)

17 (7) 759-65.

Journal code: 8112045. ISSN: 0277-5379.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

Cook 09/830912

Page 196

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

198205

ENTRY DATE:

Entered STN: 19900317

Last Updated on STN: 19900317 Entered Medline: 19820512

ED Entered STN: 19900317

Last Updated on STN: 19900317 Entered Medline: 19820512

L201 ANSWER 10 OF 58

MEDLINE on STN 2003253405 MEDLINE

ACCESSION NUMBER:

DOCUMENT NUMBER:

PubMed ID: 12776480

TITLE:

Vitamin C as a cancer treatment: state

of the science and recommendations for research.

AUTHOR:

Tamayo Carmen; Richardson Mary Ann

CONTRACT NUMBER:

5 U24 CA66826-03 (NCI)

SOURCE:

Alternative therapies in health and medicine, (2003

May-Jun) 9 (3) 94-101. Ref: 180

Journal code: 9502013. ISSN: 1078-6791.

PUB. COUNTRY:

United States

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200307

ENTRY DATE:

Entered STN: 20030603

Last Updated on STN: 20030718

Entered Medline: 20030717

Entered STN: 20030603

Last Updated on STN: 20030718 Entered Medline: 20030717

L201 ANSWER 11 OF 58

MEDLINE on STN

ACCESSION NUMBER: DOCUMENT NUMBER:

2002710978 MEDLINE PubMed ID: 12473572

TITLE:

Targeting the mitochondria: an exciting new approach to myeloma therapy. Commentary re: N. J. Bahlis et al., Feasibility and correlates of arsenic trioxide combined

with ascorbic acid-mediated depletion

of intracellular glutathione for the treatment of

relapsed/refractory multiple myeloma. Clin. Cancer Res., 8:

3658-3668, 2002.

COMMENT:

Comment in: Clin Cancer Res. 2002 Dec;8(12):3658-68. PubMed

ID: 12473574

AUTHOR:

Dalton William S

CORPORATE SOURCE:

H. Lee Moffitt Cancer Center and Research Institute, Tampa,

Florida 33612, USA.

SOURCE:

Clinical cancer research: an official journal of the

American Association for Cancer Research, (2002 Dec) 8 (12)

3643-5. Ref: 16

Journal code: 9502500. ISSN: 1078-0432.

PUB. COUNTRY:

United States

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200301

ENTRY DATE: Entered STN: 20021217

Last Updated on STN: 20030122 Entered Medline: 20030121

ED Entered STN: 20021217

> Last Updated on STN: 20030122 Entered Medline: 20030121

L201 ANSWER 12 OF 58 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:610256 CAPLUS

DOCUMENT NUMBER:

139:128009

TITLE:

Compositions for preventing human cancer and method of

preventing human cancer

INVENTOR(S):

Nishino, Hoyoku; Jinno, Kenji

PATENT ASSIGNEE(S):

Kansai Technology Licensing Organization Co., Ltd.,

Japan

SOURCE:

PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

```
PATENT NO.
                     KIND DATE
                                                APPLICATION NO. DATE
                                                -----
_____
                     _ _ _ _
                            _____
                                          WO 2002-JP9700 20020920
WO 2003063860 A1 20030807
     W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
          CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
          GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,
         LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
          TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
          PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
          NE, SN, TD, TG
```

PRIORITY APPLN. INFO.:

JP 2002-22958 A 20020131

Entered STN: 08 Aug 2003 ED

Compns. contg. vitamin E compds. in addn. to carotenoid compds. It is favorable to take these compds. in such a manner as to have 1 to 100 mg/day of the carotenoid compd.(s) and 10 to 200 mg/day of the vitamin E compd.(s). In case of administering capsules each contg. 10 mg of natural lycopene, 6 mg of natural .beta.-carotene, 3 mg of natural .alpha.-carotene, and 1 mg of other natural carotenoids and .alpha.-tocopherol to patients with cirrhosis for 5 yr, the test group showed an incidence of liver cancer 1/3 times as high as the control group. Namely, it has been proved for the first time that these compns. are significantly efficacious in preventing liver cancer in humans.

TΤ 50-81-7, Ascorbic acid, biological studies

. 7

RL: PAC (Pharmacological activity); THU (Therapeutic

use); BIOL (Biological study); USES (Uses)

(vitamin E compds. in addn. to carotenoids as drugs and health foods for preventing human cancers)

REFERENCE COUNT:

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

CAPLUS COPYRIGHT 2004 ACS on STN L201 ANSWER 13 OF 58

ACCESSION NUMBER:

2003:551303 CAPLUS

DOCUMENT NUMBER:

139:95457

TITLE:

S-Dimethylarsinothiosuccinic acid,

S-dimethylarsino-2-thiobenzoic acid and

S-(dimethylarsino)glutathione as treatments for cancer Zingaro, Ralph A.; Freireich, Emil L.; Dukale, Hatice; INVENTOR(S): Kantarjian, Hagop; Verstovsek, Srdan; Sotelo-Lerma,

Merida

Cook 09/830912 Page 198

PATENT ASSIGNEE(S):

Board of Regents, the University of Texas System, USA;

Texas A & M University PCT Int. Appl., 107 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

```
PATENT NO.
                   KIND DATE
                                          APPLICATION NO. DATE
     ______
                           _____
                                          ______
     WO 2003057012 A2
                           20030717
                                        WO 2003-US281
                                                           20030107
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
            UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,
            RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
            NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
            ML, MR, NE, SN, TD, TG
                                          US 2003-337969
     US 2004034095
                     A1 20040219
                                                           20030107
                                       US 2002-346492P P 20020107
PRIORITY APPLN. INFO.:
OTHER SOURCE(S):
                        MARPAT 139:95457
    Entered STN: 18 Jul 2003
     Arsenic trioxide, an inorg. compd., is com. available anticancer agent,
     but it carries significant toxicity. Org. arsenicals, on the other hand,
     are much less toxic, to the extent that the methylation of inorg. arsenic
     in vivo into org. arsenicals has been considered a detoxification
     reaction. New org. arsenic derivs. have been synthesized, including
     S-dimethylarsinoqlutatione, S-dimethylarsinothiosuccinic acid and
     S-dimethylarsinothiobenzoic acid, which have potent in vitro cytotoxic
     activity against numerous human tumor cell lines, both of solid and
     hematol. origin, as well as against malignant blood cells from patients
     with leukemia. The results form a basis for the development of
     S-dimethylarsinoqlutathione, S-dimethylarsinothiosuccinic acid,
     S-dimethylarsinothiobenzonic acid, and other org. arsenicals, for
     anticancer therapy, combining high efficacy with very low, if any,
     toxicity. Compd. prepn. is included.
     50-81-7, Ascorbic acid, biological studies
     RL: PAC (Pharmacological activity); THU (Therapeutic
     use); BIOL (Biological study); USES (Uses)
```

L201 ANSWER 14 OF 58 CAPLUS COPYRIGHT 2004 ACS on STN.

ACCESSION NUMBER:

with other agents)

2003:300623 CAPLUS

dimethylarsinoglutathione as treatments for cancer, and use

DOCUMENT NUMBER:

138:297630

TITLE:

AB

Nontoxic potentiation/sensitization of cancer therapy by supplementary treatment with combined vitamins C

and K3

INVENTOR(S):

Gilloteaux, Jacques; Taper, Henryk S.; Jamison, James

M.; Summers, Jack L.

PATENT ASSIGNEE(S):

USA

SOURCE:

U.S. Pat. Appl. Publ., 15 pp.

(dimethylarsinothiosuccinic acid, dimethylarsinothiobenzoic acid, and

CODEN: USXXCO

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

KIND DATE APPLICATION NO. DATE PATENT NO. ____ ______ _____ US 2002-160152 US 2003073738 A1 20030417 20020603 US 2001-295025P P 20010601 PRIORITY APPLN. INFO.:

Entered STN: 18 Apr 2003

A combination of Vitamin C and a quinone are used as a supplemental AΒ treatment for a cancer patient. The combination may be administered before, during and after the patient undergoes a conventional cancer treatment protocol. The combination may be administered orally, i.v., or i.p. Oral administration may be in the form of capsules contg. a predetd. ratio of Vitamin C to Vitamin K3. The supplemental treatment is effective to inhibit metastases of cancer cells and inhibit tumor growth. The ratio of Vitamin C to Vitamin K3 is in the range of about 50 to 1 to about 250 to 1. A method for evaluating the effectiveness of the supplemental treatment includes monitoring the patient's serum DNase activity throughout the course of treatment.

50-81-7, Vitamin C, biological studies IT

RL: PAC (Pharmacological activity); THU (Therapeutic

use); BIOL (Biological study); USES (Uses)

(nontoxic potentiation/sensitization of cancer therapy by supplementary treatment with combined vitamins C and K3)

L201 ANSWER 15 OF 58 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:406227 CAPLUS

DOCUMENT NUMBER: 139:159294

The association of vitamins C and K3 kills cancer TITLE:

cells mainly by autoschizis, a novel form of cell

death. Basis for their potential use as coadjuvants in

anticancer therapy

Verrax, Julien; Cadrobbi, Julie; Delvaux, Marianne; AUTHOR (S):

Jamison, James M.; Gilloteaux, Jacques; Summers, Jack

L.; Taper, Henryk S.; Buc Calderon, Pedro

Departement des sciences pharmaceutiques, Nutrition et CORPORATE SOURCE:

Toxicologie, Metabolisme, Unite de Pharmacocinetique,

Universite Catholique de Louvain, Brussels, Belg.

European Journal of Medicinal Chemistry (2003), 38(5), SOURCE:

451-457

CODEN: EJMCA5; ISSN: 0223-5234

PUBLISHER: Elsevier Science Ltd. Journal; General Review DOCUMENT TYPE:

LANGUAGE: English

Entered STN: 28 May 2003 A review. Deficiency of alk. and acid DNase is a hallmark in all AΒ non-necrotic cancer cells in animals and humans. These enzymes are reactivated at early stages of cancer cell death by vitamin C (acid DNase) and vitamin K3 (alk. DNase). Moreover, the coadministration of these vitamins (in a ratio of 100:1, for C and K3, resp.) produced selective cancer cell death. Detailed morphol. studies indicated that cell death is produced mainly by autoschizis, a new type of cancer cell death. Several mechanisms are involved in such a cell death induced by CK3, they included: formation of H2O2 during vitamins redox cycling, oxidative stress, DNA fragmentation, no caspase-3 activation, and cell membrane injury with progressive loss of organelle-free cytoplasm. Changes in the phosphorylation level of some crit. proteins leading to inactivation of NF-.kappa.B appear as main intracellular signal transduction pathways. The increase knowledge in the mechanisms underlying cancer cells death by CK3 may ameliorate the techniques of their in vivo administration. The aim is to prep. the introduction of the assocn. of vitamins C and K3 into human clinics as a new, non-toxic adjuvant cancer therapy.

50-81-7, Vitamin C, biological studies IT

THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS

RL: PAC (Pharmacological activity); THU (Therapeutic

use); BIOL (Biological study); USES (Uses)

44

(assocn. of vitamins C and K3 kills cancer cells by

autoschizis)

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L201 ANSWER 16 OF 58 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:505982 CAPLUS

DOCUMENT NUMBER: 139:159336

TITLE: Vitamin C in alternative cancer treatment: historical

background

Block, Keith I.; Mead, Mark N. AUTHOR(S):

CORPORATE SOURCE: Block Center for Integrative Cancer Care, Evanston,

IL, USA

SOURCE: Integrative Cancer Therapies (2003), 2(2), 147-154

CODEN: ICTNAY; ISSN: 1534-7354

PUBLISHER:

Sage Publications

DOCUMENT TYPE:

REFERENCE COUNT:

Journal; General Review

LANGUAGE: English ED Entered STN: 03 Jul 2003

AB A review. Ascorbic acid is the single-nutrient supplement most commonly used by cancer patients, although in most cases this takes place without the physician's knowledge or supervision. A comprehensive review of the literature is presented on the impact of ascorbic acid on cancer survival. Findings from 6 uncontrolled studies suggest that ascorbic acid may increase survival, whereas 2 controlled trials have yielded null results. The relative strengths and limitations of these studies are discussed. A turning point occurred with the release of the 2 controlled (null) studies, which influenced many physicians to turn away from nutrition in the care of cancer patients. Controversy about these trials still persists, however, in the alternative cancer community.

50-81-7, Vitamin C, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic

use); BIOL (Biological study); USES (Uses)

(vitamin C in alternative cancer treatment)

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L201 ANSWER 17 OF 58 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:675772 CAPLUS

DOCUMENT NUMBER: 137:195546

TITLE: Treatment of HIV and viral diseases, vascular disease

and cancer using a COX-2 inhibitor and cystine

INVENTOR(S): Kindness, George; Schumm, Brooke, III; Guilford,

Timothy F.

PATENT ASSIGNEE(S): Probiochem, LLC, USA SOURCE: PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

PATENT INFORMATION:

APPLICATION NO. DATE PATENT NO. KIND DATE ---------WO 2002067853 A2 20020906 WO 2002-US2480 20020126 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM